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The French School of Medicine

TO French medical men, mankind owes some of the most remarkable and far-reaching and useful discoveries in matters medical. From Ambroise Paré (1509-1590), the first great military surgeon, to the surgeons, pathologists, bacteriologists, therapeutists and others of the present day, French medicine always has stood for courageous progress tempered with keen reasoning.

It is with much satisfaction and pride that we announce a series of original contributions to THE AMERICAN JOURNAL OF CLINICAL MEDICINE from a number of the leaders of medical thought in France. One of the first of these articles, dealing with electro-coagulation in surgery of the urinary organs, by Professor Georges Luys, of Paris, will appear in the August issue.

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Originally Announced in The Doctor's Factotum, July, 1918.

THE ARLINGTON CHEMICAL CO., Yonkers, N. Y.

The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

Vol. 26, No. 7 July, 1919

The Local Treatment of Erysipelas

SINCE the causal importance of the streptococcus for the occurrence of erysipelas has been determined, the treatment of this infectious disease has become more definite. Particularly, attempts have been made to shorten the course of the malady possibly through immunization by means of antistreptococcus-serum, prepared as, for instance, by Marmorek.

In earlier times, the treatment of erysipelas was entirely empirical, being limited largely to local applications and for which a multiplicity of remedies were being employed. Alcohol, oil of turpentine, mercuric chloride, carbolic acid, creolin, iodine, iodoform, camphor, and various other drugs belonging to the group of antiseptics, have found favor with different observers, while, of modern remedies, ichthyol appears to hold the first place.

Forchheimer points out that, unless the medicament—whichever it be—is applied in a very definite manner, its action depends entirely upon chance, and, because of this, he explains the great number of remedies recommended and also the therapeutic nihilism still prevailing to a certain degree with respect to the effectiveness of the local treatment of erysipelas. The principal methods described by Forchheimer are as follows:

The inclusion-method, which is valuable in those localities (the extremities and trunk) in which it can readily be applied. In addition to inclusion, a certain amount of pressure is necessary, this sometimes being secured by means of adhesive plaster, while other authors have used collodion, with success.

In the direct treatment of the entire infected area, numerous incisions are made into the skin, about one inch long, but, without causing much bleeding. The whole infected area then is massaged, thus forcing the fluid out of the lymphatics, after which a 60-percent-ichthyol salve (in lanolin) is rubbed in, then covering with more of the same salve. Instead of ichthyol, a 1-percent solution of mercuric chloride has been recommended.

In view of the favor with which the local application of tincture of iodine was

received, as a local antiseptic of superior penetrating properties, it is strange that this agent has not been utilized more largely in the local treatment of erysipelas. In his "Analytic Cyclopedia of Practical Medicine" (1918, vol. 4), Sajous does not even mention tincture of iodine, while C. B. Ker ("Infectious Diseases", 1909, p. 445) declares that it is not of the slightest use. R. W. Wilcox ("Treatment of Diseases", 1911) omits iodine from the list of the remedies recommended, considering Credé's ointment of soluble silver, the most effectual remedy. In addition to this, he mentions the saturated aqueous solution of magnesium sulphate and an ointment of ichthyol, either alone or together with phenol.

In this connection, it is of interest to mention a communication, by two French army-surgeons, to *Le Monde Médical* for April, in which they refer to some work done by Walther and Touraine, concerning the disinfection of the skin with tincture of iodine. In accordance with certain theoretical considerations, which it hardly is necessary to repeat here, it is quite logical to suppose that whenever tincture of iodine of suitable strength, is applied to the skin in sufficient amount and at sufficiently short intervals, the development of the streptococcus is likely to be hindered or even arrested, so that the erysipelas-process may be expected to cease to spread.

Experience has confirmed this *a priori* view in a very encouraging manner, since, out of 9 cases of surgical erysipelas treated by the French surgeons referred to, 6 ended in complete recovery, although some of them were very severe and had resisted all the customary methods of treatment.

The authors use the tincture of the French codex, "once diluted," which means a dilution of 1 : 20.

This tincture is applied, not merely to the erysipelatous patch, but, *far beyond* it on the healthy skin. Only one coat of the tincture is applied; but, the painting is repeated three times during the first twenty-four hours and is continued for several days, if need be. Between applications, the lesion is covered with a dry aseptic dressing.

Within a few hours after the first application, there was observed a marked relief of the pain that usually is present, the cause being the distention of the meshes of connective tissue, especially in the raised margins. This raised margin soon subsides. Indeed, after the third or fourth painting, the extension of the lesion is arrested, the glandular enlargement and sensitiveness disappear, the fever falls, by lysis, in the course of two or three days. Delirium, insomnia, restlessness subside, and copious diuresis marks the entrance of convalescence.

The authors refer to the experience of the surgical service in Val-de-Grâce, where, among face-wounds, there are numerous cases of surgical erysipelas. However, thanks to repeated extensive painting with tincture of iodine, no case of contact-infection has been witnessed.

The authors add that no injurious effects have been observed after the use of tincture of iodine of a strength of 1 in 20.

Choose such pleasures as recreate much and cost little. —Fuller.

THE ANTIVIVISECTIONISTS

At a recent meeting of the Chicago Medical Society, a paper was read by Doctor Albert H. Burr, entitled "The World's Great Debt to Vivisection", the same calling attention to the danger threatening scientific research because of the increased activity of the antivivisectionists. With that strange obsession spreading more and more among a certain class of minds, it behooves the medical profession to take active measures to present to the general public the facts in their true light. Unfortunately, many persons have been led to listen to and to countenance the propaganda of the "antis", because they have heard only one side of the matter, and that a tissue of falsehoods and misrepresentations.

Last year, with the war going on and millions of our young men in the army, these blinded apostles of prejudice instituted a suit in equity in Washington, D. C., to restrain the Red Cross Society from appropriating $100,000 for laboratory-research work in France, for the benefit of our troops at the front.

That sane people could be found to do such a thing seems almost incredible; nevertheless, it is true. There never has

been a war in the world's history in which so small a proportion of the soldiers suffered from disease and so large a proportion of the wounded recovered as in the one just concluded. And, this remarkable record we owe to the knowledge gained through vivisection. We only have to enumerate the list of diseases that have been either wholly or in part robbed of their terrors, in order to realize the amazing absurdity of this "anti" propaganda. Even if vivisection had accomplished no no more than the control of tetanus, typhoid fever, typhus, and diphtheria, the result would be well worth all the suffering it may have inflicted upon a few animals; while, besides, we must not overlook the enormous benefits incidentally accrued to the animals, themselves, through the better control gained over the diseases to which they are subject.

There is no stranger problem in psychology than the mental attitude of these "antis". Their utter indifference to facts regarding the control of disease is not more astonishing than is their entire inconsisteney regarding cruelty to animals when their own pleasure or profit is concerned. The cruelties inherent in the meat-trade and in the fur-trade involve a thousand times more suffering to animals than does all the vivisection of modern times; and, yet, we do not find these tender-hearted people refusing to eat meat or to wear furs.

Doctor Burr very pointedly says: "In the morning, my lady takes her pleasure-ride on a gaited gelding; she regales her guests at dinner with a toothsome capon; and, decked in Persian-lamb skin and aigrette-plumes at the evening lecture, she grows righteously indignant at the inhumanities of the medical vivisectionist. 'Tis passing strange, indeed, that pain inflicted by man upon animals for the purpose of pleasing his palate or fattening his purse suddenly becomes a barbarous crime in the vivisecting-laboratories of the most humane of all professions, when employed for the eure, relief or prevention of human ills. In the parlance of the street, 'Can you beat it?'"

There are three things which the organized forces of medicine should do at once and continue to do: (1) Educate the public; (2) fight vicious legislation; and (3) put vivisection under strict control. Of course, much has been done already. The American Medical Association has issued a series of pamphlets that cover the ground very satisfactory. Still, the main thing is, to get them into the hands of the people. And, we must realize that educating the public is a slow process and that our efforts never must cease.

We need the cooperation of the newspapers and magazines to the extent that this can be obtained; we also need the help of the family-physician. The latter holds in his hands a great deal of influence, if only he can be brought to see the importance of using it. Every time that he treats a patient whose case today is better understood because of the aid of vivisection, the doctor is provided with a text and with an audience; an audience, too, prejudiced in his favor, as a rule, and ready to listen to the facts. If every doctor were to improve his opportunities in this respect, the aggregate results would be enormous.

However, it is in the matter of control that we have exposed our weak spot to the enemy. It is here that we have been remiss and have unwittingly placed weapons into the enemy's hands, by not properly controlling the practice of vivisection and thus permitting abuses to creep in. The present writer has seen things done in medical colleges that ought to arouse the indignation of any humane person. The haphazard vivisection carried on by irresponsible students should be absolutely abolished. It is of no educational value, and it is the chief avenue through which the "antis" get most of their ammunition. It is a fact well known to the population living in the vicinity of medical colleges that pet dogs and cats are not safe for a moment out of the owners' sight, these animals being picked up by the students for the purpose of vivisection. Perhaps, in one sense, these captures are not a great loss to the community, but, the important side of the matter is, that it creates and fosters in the public mind a prejudice against vivisection. People who have been angered by the loss of their pets are in a frame of mind to believe and spread the wildest and most extravagant tales about the horrors of vivisection. It is this vivisection by irresponsible students that constitutes the main source of the stories of horror that are the stock in trade of the professional "anti", because nowhere else

does the matter come home to the public so directly and vividly.

Even vivisection by one of the professors before a class may well be criticized, on the ground that only a small number of students are near enough to see anything of value, while all the valuable facts can be presented just as efficiently in other ways. We do not think it necessary to bring a cow into the amphitheater, in order to teach students the manner in which Jenner discovered vaccination.

It is a sound principle in education that students can not all be pioneers, but, that the vast majority must get their knowledge from the work of a few pioneers. Cutting out vivisection in medical colleges and limiting it to the great laboratories with trained investigators, would go far toward abating public prejudice that has been sedulously fostered by ill-informed persons.

So far as control is concerned, it should be similar to that exercised over medical education, in general, a control backed by legal enactment, although exercised by the profession itself. Of course, the "antis" want a control exercised by themselves, which simply would mean strangulation. The medical profession has demonstrated that it can control medical education in such a manner that the public interest does not suffer, in fact, is vastly benefited. There is no reason why a similar control of vivisection could not operate to the advantage of both, the profession and the public.

He that would have the perfection of pleasure must be moderate in the use of it.

—Benjamin Whichcote.

"THE ROAD TO HEALTH"

"The while the war was .claiming its thousands of lives on the European battlefields. hundreds of thousands of lives were lost right here at home because of preventable diseases. The war is over. We have won the fight for Democracy. However, we have yet to win the fight against this more insidious, more permanent, and, in the aggregate, more direct foe of mankind—disease."

The foregoing paragraph introduces a popular health-leaflet entitled, "The Road to Health," recently issued by the United States Public Health Service. It deals with prevention of sickness and correction of physical defects, discusses rules of hygiene, and it contains some excellent suggestions and advice in concise form.

This pamphlet may be obtained for the asking by addressing the United States Public Health Service, Washington, D. C.

THE PHARMACOPEIAL CONVENTION

Dr. Harvey W. Wiley, president of the Pharmacopeial Convention, has issued a call to all competent and designated bodies and authorities to name, and issue credentials to, the fixed number of delegates to the tenth decennial convention for revising the U. S. P. to meet in Washington, D. C., on the second Tuesday of May, 1920.

The year 1920 will complete the first century of the birth of the United States Pharmacopeia, and it is fitting that the convention for the tenth revision of this important codex take place in that year.

Before the first issue (in 1820) of the Pharmacopœia of the United States of America was brought out, "by the authority of the medical societies and authorities", there had appeared, in 1808, "The Pharmacopœia of the Massachusetts Medical Society", which was published in Boston by E. and J. Larkin. After this original edition of the Pharmacopeia, revisions appeared as follows: The second edition, published in 1828, "by the authority of the medical societies and colleges"; the third edition in 1831, "by the authority of the National Medical Convention"; the fourth edition, in 1851, "by the authority of the National Medical Convention"; "The Fifth Decennial Revision" appeared in 1882, "by the authority of the National Convention for Revising the Pharmacopeia, held at Washington, D. C., A. D. 1870." The Sixth Decennial Revision was issued in 1883, the National Convention having been held in 1880. The Seventh Decennial Revision appeared in 1893, also three years after the convention met. The eight Decennial Revision was published in 1905, five years after the meeting of the U. S. Pharmacopeial Convention; and the Ninth Decennial Revision was published in 1916, in conformity with the decisions of the Pharmacopeial Convention which had been held in 1910.

It may be of interest to mention that Clinical Medicine contains in its library a complete set of all these editions of the

Pharmacopeias, beginning with the one compiled by the Massachusetts Medical Society in 1808. The work of the forthcoming convention, which is to result in a tenth revision of this medical formulary, will be looked forward to with much interest, not only by pharmacists, but, also by physicians.

There is a pleasure in the pathless woods,
There is a rapture on the lonely shore,
There is society where none intrudes
By the deep Sea, and music in its roar.
—Byron.

ANENT MEDICAL BUSINESS EFFICIENCY

A few months ago, Dr. G. Sherman Peterkin, of Seattle, Washington, published a pamphlet on the subject of ethical economics versus medical ethics, or, efficiency in medical practice. In this pamphlet, the author describes the business-methods practiced in his office which really, perhaps, should be called an institution, and one in which a tremendous amount of most excellent special work is being accomplished. The methods outlined in this description are the extreme of efficiency. The *diseases* coming under observation are treated in a really scientific and efficient manner, while the business-side of the work is conducted along strict lines in accordance with definite rules. Indeed, there is nothing slipshod, nothing neglectful about the management; there is no forgetting of anything.

Upon entering the office of Doctor Peterkin, the patient is questioned as to name and other particulars, and then is given a serial number, and by this number he is known in the future. He is treated strictly in accordance with his physical ailments, which are determined in a highly scientific and satisfactory manner. The library, laboratory, treating-appliances, all are theoretically up to date. Indeed the library is so exclusively modern that literature four years old is eliminated from year to year. One feels that the Doctor always is just about one month ahead of the times, and tries to keep there.

Incidentally, the "cases" are looked up as to financial resources and responsibility; while, so far as the business-efficiency is concerned, one is treated to a beautiful exhibition of that. Services, payments, everything is recorded in perfectly just and proper figures. If any payment is missed and may have to be charged off, proper credit-memoranda are entered, and the patient's signature acknowledging indebtedness is secured. Every possible precaution is taken to conduct the *business* efficiently.

It is all very beautiful, scientific, and business-like; in fact, efficiency stares you in the face from every page, from every illustration, from every paragraph. Nevertheless, I'll be damned if I want to be treated by that man. Supposing he does handle his *cases* scientifically and efficiently, what about the *patients?* Supposing he is a highly accomplished and capable urologist and medical man, is he a *physician?* I question whether—no, I deny that medical practice can, in the long run, be conducted with a sole eye to efficiency and with everything human excluded, with the personal factor ellminated, with the "cases" considered merely as aggregations of organs, some of which are out of whack and needing tinkering, or plumbing, or sewing, or vibrating, or electrocuting, or some other damned manipulation.

Our patients are not just mechanical or chemical organisms out of gear that must be put into running order again. They are humans, whose physical makeup is disturbed, but, whose mentality invariably has suffered as well and requires attention that can not be expressed in so many hours of energy, so much effort spent in physical or drug-treatment; nor can the services be evaluated correctly in dollars and cents. I grant that Peterkin may be a very prominent member of the medical fraternity. I consider that he may be a very scientific doctor of medicine; yet, may a kind fate preserve me from ever falling into his hands or of those of his kind. Selah!

Now, I do not mean to insinuate that physicians should not put into their practice a lot of business-system. Indeed, they need that, and, need it badly! However, it is quite possible to do this well without sacrificing any of the human and the humane aspects of the question. Indeed, by preserving these elements, the success of physicians, in the management of their patients as well as of their "cases," will be far greater. It is not necessary for a man to be slipshod, in order to be a good fellow, nor—let us admit it—is a physician who is a good business-man necessarily devoid of the milk of human kindness. In-

deed, I assume, without hesitation, that Doctor Peterkin does a considerable amount of charity-work. Nevertheless, I can not help being impressed rather disagreeably by all this extreme efficiency and to wonder whether a little less cold business-sense and a little more personal sympathy would not help in making the work more—not efficient, so much, as effective.

That moment in which a man stops—and fully realizes the magic and immediate effect of an evolutionary action—the moment which enlists his efforts on a higher plane and enrolls him in an advanced class—that moment is more productive of progress than years of plodding.

—R. Oberhauser.

THE PROBLEM OF THE MEDICAL QUACK

The pernicious and dishonest activities of medical quacks and of patent-medicine manufacturers have been materially lessened since Samuel Hopkins Adams wrote his notable article under the caption, "The Great American Fraud," and more so since the American Medical Association took up the work, to which it lent its entire and whole-hearted influence.

Some years ago, *The Chicago Tribune* accomplished much good in the direction of cleaning up the advertising pages of daily papers and of other publications, at least in so far as the English-language periodicals are concerned. Although much still remains to be accomplished in this direction, it must be granted that quackery no longer is quite so arrogantly in evidence as it was in former years. This result, which, undoubtedly, accrues to the benefit of the sick, unfortunately, does not extend to a large proportion of the population of great cities, as, for instance, that of Chicago, which is recruited by immigrants from foreign countries. In so far as immigrants belong to the ignorant classes and do not exchange their own language for English, and in so far as they congregate in settlements and retain their national customs and views, to that extent, they necessarily forego many of the blessings of the country to which they come with high hopes, as to a country of liberty and of opportunity.

Having been raised in ignorance and, among other things, with a childish confidence and faith in the printed word, especially what is told in their newspapers, these people become an easy prey to arrogant and dishonest advertisers, and it is here that medical quacks and advertising journals reap a rich harvest.

Some months ago, Dr. Henry R. Krasnow, of Chicago, (*Ill. Med. Jour.*, Nov., 1917) called attention to this very serious problem, and made the statement that the reasons underlying the prevailing conditions were, (1) ignorance of the foreigners; (2) distortion of the idea of personal liberty by clever lawyers, giving the quacks a standing in court; (3) organization of the quacks; and (4) the apathy of the medical profession.

At that time, a committee was appointed, by the Douglas Park Branch of the Chicago Medical Society, to study the question and report a detailed plan of action for combating the quacks. The report of this committee may be studied in a paper by Doctor Krasnow and which appeared in *The Illinois Medical Journal for January*, 1919. This committee offered the following suggestions, from which it is evident that the problem has, by no means, been solved but requires further study.

1. The laws governing prosecutions of the quacks are very lax; usually a fine of a few dollars, but, which, by the way, the quacks, as a rule, manage to evade. Strict and rigid legislation has to be instituted, which classifies medical quackery among the criminal offenses.

2. The American Association of Foreign Language Newspapers, which supposedly has for its aim the welfare of the immigrants of this country, should institute a censorship over all the medical advertising in every newspaper issued in this country in a foreign language.

3. The American Medical Association should include in its program a wide propaganda pertaining to the question of enlightening the laity as to the activities of medical quackery and its evil doings; this propaganda to be carried out by means of popular literature printed in several foreign languages and distributed broadcast.

4. The general practitioner must consider it his duty to get information on every possible case of medical quackery. He should at any time, possess some ready and rapid-fire means to participate in the work of fighting the quack or, at least, to communicate his findings to the proper agencies.

5. A special committee should be appointed, with the primary aim in view to

further the study of the question of medical quackery; this committee to work in conjunction with the Grievance Committee established by the Chicago Medical Society. The Committee was to be provided with an adequate appropriation for literature, postage, and other expenses attached to the work.

A final report of the quackery committee, appointed by the Douglas Park Branch of the Chicago Medical Society, was presented by Doctor Krasnow last March, and printed in the *Illinois Medical Journal* for May. Reprints of these various reports are available and can be secured from Doctor Krasnow by request, enclosing a postage stamp. Physicians all over the country should interest themselves in this matter and should join in concerted efforts to put down this canker sore.

A man is no bigger than his ability to serve others.

THE ANNUAL REPORT OF THE SURGEON-GENERAL OF THE U. S. NAVY

The annual report for the fiscal year 1918, of the Surgeon-General of the U. S. Navy, Chief of the Bureau of Medicine and Surgery, to the Secretary of the Navy, of necessity deals with many problems that are of special importance, inasmuch as it gives an account of the activities of the Naval Medical Service during the period of the war.

It is quite impossible to review this report in detail, and it will be useless to quote from it statistical data, since copies can be obtained from the *Superintendent of Documents*, Washington, D. C., at small cost.

Among many other points, there are a few that have interested us while studying this report. For instance, in the course of examining the men desiring to enlist in the Navy, and also after their admission to training-stations, a not inconsiderable number of individuals were discovered in whom latent insanity or mental inferiority sooner or later would inevitably cause unfitness for practical service, although these men had successfully passed the physical examinations conducted at the recruiting offices. Thus, at the Newport Training Station, among 866 recruits interviewed during January, 1918, 16 defectives were discovered, who exhibited stigmata of constitutional inferiority, epilepsy, hypochondriasis, hysteria, imbecility, neurasthenia, stammering, chronic morphine-addiction, or dementia præcox.

At the Naval Training Camp at San Diego, California, of 309 men studied in the course of 44 days, 22 were invalided from the service on account of nervous or mental disease. At the Naval Operating Base, Hampton Roads, Virginia, between August 1, 1917, and December 31, 1917, there were discovered 360 cases of suspected abnormality, among whom 191 were retained for survey. At the Naval Training Station at Great Lakes, Illinois, of 6,604 recruits examined, 177 positively psychopathic cases were discovered.

One of the most serious problems confronting the medical service of the Navy, as well as that of the Army, was, the occurrence of communicable diseases in camp. At Great Lakes Training Station, for instance, and in several other stations, serious outbreaks of cerebrospinal fever occurred. This, undoubtedly, was owing to the extreme crowding that was unavoidable, because of the great numbers of recruits admitted and also because of the impossibility, under the circumstances, of holding these men in the detention-camp for sufficiently long periods to assure their freedom from infection. The report of the Surgeon-General deals with this question in detail, and the remarks concerning it are well worth the study. The experiences with other infectious diseases, such as pneumonia, measles, scarlet-fever, diphtheria, mumps, influenza, venereal diseases, typhoid fever, et cetera, also are interestingly dealt with.

Altogether, the Surgeon-General's report constitutes a valuable document that will repay careful reading.

THE REHABILITATION OF THE BLIND

An impressive feature in the work being done in this country and in England, in the direction of restoring soldiers that lost their eyesight in the war to useful and remunerative occupations, is, the optimism and courage with which the men and women in charge of the work have imbued their pupils. The reports from institutions, like the one near Baltimore, in this country, and like at St. Dunstan's, in England, show that, after the first unavoidable per-

iod of depression and discouragement, the physically blind have their mental eyes opened, so that they have learned to look upon life and life's problems in an optimistic and courageous manner that well might be imitated by others not thus hampered.

Indeed, these men have cause to feel confident of their future fate, because everything is being done to teach them work that they can perform well and by which they will be able to earn a good living for themselves and their families.

As an instance of this work of rehabilitation, we wish to refer to arrangements made by the Chicago Lighthouse, conducted by the Improvement Association for Blind People, with Peter J. Peel to supervise the work of his blind graduates. These students are being trained, in Mr. Peel's institution, to give massage-treatment and the experience of many years, according to which the blind have long been employed as masseurs in Japan, is being verified by Mr. Peel, who highly commends the progress that his students have made.

We are informed that, under Mr. Peel's supervision, his blind pupil-operators are permitted to give treatments, when necessary, at reduced rates, and there are many patients that are in need of this kind of treatment, but, who can not afford the regular fee and for whom the opportunity here offered is proving a great boon.

In connection with the same problem, we wish to refer to a book recently written by Dr. Harvey Best (published by the MacMillan Company), under the title of "The Blind: Their Condition and the Work Being Done for Them in the United States. This is the most comprehensive work on the subject that has yet been published in America. The table of contents indicates information on virtually every question that may arise in connection with the blind and, undoubtedly, it is an authoritative and remarkably useful volume.

This reminds us that a few months ago the fourth annual report of the National Committee for the Prevention of Blindness, Inc., was published. The work of this association extends more in the direction of preventing blindness through causes that are active in peace-time, especially the blindness following the opthalmia of infants, of trachoma, and other diseases. We have no doubt but that the work of the National Committee for the Prevention of Blindness will be furthered immensely by the rehabilitation-work herein referred to.

You can tell a good deal about a man by the way his dog treats him.

DOCTOR BLAKE

Early in the war, in fact, at its very beginning, Dr. Joseph A. Blake, of New York, went abroad and offered his services to France, and there he was put in charge of one of the American hospitals operated in Paris. Beginning in April, 1917, he organized a chain of hospitals that were operated by the American Red Cross, with himself as surgeon in chief. In addition, he was consulting surgeon for the District of Paris. At one time, there were under his jurisdiction more than fifteen thousand beds. He now has returned with the Cross of the Legion of Honor and the D. S. M. and holds the rank of colonel in the American Army.

Copyright: International Film Service.
Dr. Joseph Blake in His Office in the American Red Cross Hospital in Paris.

For these hospitals under his care, there was an army-allowance of about 70 cents a day for each soldier; the surgeons, being army officers, were compensated by the government, as were also the nurses. The remaining expenses were carried by the Red Cross. Virtually all the surgical supplies and dressings used during the war were supplied by the Red Cross.

Dr. Blake took great satisfaction in the friendship existing among the medical men of the allies and the spirit of cooperation manifested on all occasions. He praised the work done by the British in their work with the Americans in discovering the cause of trench-fever and its treat-

ment. He said the medical men were indebted to the French for the advancement made in the treating of gunshot-wounds and declared that he never had witnessed finer surgery than some cases that he had witnessed in French hospitals. He considered that the Belgians had attained excellent results in the treatment of wounds and fractures and was proud to be able

Copyright: International Film Service.
Dr. Joseph A. Blake with a group of convalescents at the American Red Cross Hospital in Paris, holding the Gordon setter which saved his master by scratching away the earth until he was released. The owner of the dog was the only man saved when a German shell struck a French trench burying its occupants.

to report that the American method of treating fractures, as used at Ris-Orange, was adopted by the French. Although he had little chance of coming in direct contact with the Italians, he said that he had heard fine reports about their skill.

SCOPOLAMINE-MORPHINE IN WAR-SURGERY

The problems of emergency-surgery and of industrial surgery have been illustrated in many ways in the experiences during the war, the surgical practice of which constitutes emergencies in the *n*th degree, namely, an immense number of experiences gathered at the front and at base hospitals that will be utilized in peace-times, to the great advantage of the patients and also with considerable benefit to surgeons and nurses.

The matter of anesthesia, especially, is one that had necessarily presented many difficulties, and a suggestion recorded by Dr. C. W. Strobell, in *The Medical Record* for April 26, deserves commendation, for various reasons.

Doctor Strobell holds that scopolamine-morphine, administered in the field preparatory to emergency-surgery, to be done on arrival at the dressing-station, would be of great value, primarily as an analgesic and, secondarily, in anesthetizing the wounded man, so as to have him ready for operation.

A first full-strength dose (scopolamine hydrobromide, gr. 1-100, and morphine hydrobromide, gr. 1-4) should be administered hypodermically immediately upon reaching the wounded man. Thirty minutes thereafter a second similar dose should be given in the same way. Thus, at the end of one hour from the administration of the first hypodermic dose, the patient should be in condition to undergo an operation, such as setting and dressing the simple and compound fractures, reducing dislocations, completing partial shell amputations, ligating vessels, trimming and dressing extensive lacerations, dressing burns, exploration and extraction of foreign bodies, and other operations. In exceptionally severe cases, a trifle of ether may be required in addition.

Even major surgical work may be done satisfactorily under this form of anesthesia which, fortunately, requires far less preparation of the patient than does inhalation-anesthesia. An initial full-strength dose may be given at any time, no matter whether the gastrointestinal canal is full or not.

Scopolamine-morphine thus administered confers a surgical sleep that continues for hours after the operation is finished and from which the patient awakens rested and normal so far as his ability to take liquid refreshments is concerned. Moreover, it confers the anociassociation of Crile, thus preventing postoperative pain and shock, as well as nausea and vomiting. This makes it possible to dispense with the constant attendance of the nurse at the bedside, the patient being safely left to sleep it off.

It is wise to exclude light, noise, and rough treatment. The ears should be stopped with cotton saturated with zinc oxide ointment, the eyes should be bandaged, while rough handling, as also hot and cold applications, should be avoided.

The method is an economic advantage in comparison with ether, chloroform, nitrous oxide, and the other agents. It effects an actual money saving of 75 percent, with a further 50-percent reduction in the time of nurses and attendants. Moreover, it involves a 90-percent elimination of oxygen gas from the expense-account.

It would seem that this form of anesthesia would be particularly favorable for

emergency-surgery, inasmuch as it makes possible a painless transportation of the injured patients to the hospital, at the same time, shortening the time of preparation for operation, which itself also is greatly facilitated. The fact that postoperative distress is avoided, is a factor of no little additional moment.

God puts the excess of hope in one man, in order that it may be a medicine to the man who is despondent. —Henry Ward Beecher.

THE TREATMENT OF INFANTILE DIARRHEA

In an article on infantile summer-diarrhea, (*Med. Times*, May) Doctor Glover mentions that the treatment of this disorder must be curative and preventive. After the infection has occurred, a dose of castor oil, calomel, or gray powder should be given, followed by an appropriate mixture, such as the following:

Salol	grs. 15
Bismuth subnitrate	grs. 48
Tincture of catechu or tincture of hamamelis	min. 48
Tincture of opium	min. 8
Chalk mixture, enough to make	ozs. 2
Syrup of ginger	drs. 2

Label: Take a teaspoonful every three hours unless drowsy.

Such would be appropriate for a child up to six months of age. From 6 to 12 1-minim doses of tincture of opium may be given, and the bismuth subnitrate increased to 4- or 5-grain doses. In resistant cases, the dose of tincture of opium should be increased, but, the effect upon the pupil watched carefully, or a mixture aromatic of sulphuric acid with tincture of opium be given.

Mild cases may be treated with the following mixture:

Salicylate of bismuth	grs. 40
Salol	grs. 15
Syrup of ginger	drs. 2
Chalk mixture, enough to make	ozs. 2

Label: A teaspoonful every three hours.

When no stool has occurred for two days, give a little castor-oil, or 1 grain of gray powder.

The present writer does not agree with this method of medication at all, being convinced that there should be much greater simplicity; especially do we doubt the advisability of embodying tincture of opium in a medicine to be given to infants less than one year old. There are other sedatives that are less potentially injurious to babies, although, in older children or in adults, tincture of opium may become necessary in a severe attack of cholera morbus.

The principal indication for treatment in the case of infantile diarrhea is, of course: the elimination of the infected and fermenting intestinal contents. Undoubtedly, castor-oil is effective in this regard. We believe, though, that the depressing action of this remedy is undesirable and that the intestinal tract may be cleaned as efficiently with less depression following by means of plain mineral oil.

The advisability of employing astringent remedies such as bismuth or hamamelis may be questioned. In the majority of cases, intestinal antiseptics, say, salol, and, especially, the sulphocarbolates, will exert a sufficiently marked action in overcoming the infection of the intestinal canal. Of the sulphocarbolates the zinc salt or, still better, the copper salt, will but rarely be without satisfactory results the copper compound being far superior. Care must be taken, of course, to administer it in solution, because otherwise serious irritation may be produced.

The treatment of infantile diarrhea should be as simple as possible. For this reason, we should limit our efforts to elimination by means of liquid paraffin; counteract the infection with copper sulphocarbolate in solution, controlling the pain with the aid of hyoscyamine, and regulating the intake of fluids, nutritive or otherwise, strictly in accordance with the conditions found present.

Milk has, long ago—and justly so—been condemned in cases of this sort, as causing or being liable to cause and maintain fermentation. Albumin-water, barley-water, rice-water undoubtedly being to be preferred. Some of the portein-carrying food tonics may also be utilized to advantage, such as liquid peptonoids, panopeptone, and similar preparations. As early as possible, the little patient should be given water freely, being careful to secure a pure drinking-water.

While Doctor. Glover's opinion, that brandy is of great service in these cases in combating collapse, undoubtedly is justified, there are other remedies that will have as good an effect, such as, for instance, tincture of nux vomica.

Leading Articles

Chronic Amebic Dysentery and Emetine-and-Bismuth Iodide*

By JACQUES CARLES, M. D., Professor of Medicine, Bordeaux, France

EMETINE, an alkaloid of ipecac, was discovered by Pelletier and Magendie, and was first used in the treatment of amebiasis by Leonard Rogers, of Calcutta, and renders inestimable service in the treatment of acute amebic dysentery.

One subcutaneous or intramuscular injection of 0.04 Gram of emetine hydrochloride, given every morning and evening for three or four days, then one injection daily for several days, gives marvelous results. Under the influence of this valuable remedy, the most serious acute forms of the disease improve, in the majority of cases, as if by magic.

But, if emetine exerts a rapid and truly effective action in the *acute* dysenteric processes, this is not true for the *chronic* forms. While it acts upon the amebas imbedded in the intestinal walls, it does not affect those that multiply in the intestinal cavity.

It is also without effect upon the encysted germs. Consequently, we still remain but poorly equipped for combating the persistent and refractory manifestations of chronic amebic dysentery. It suffices but to read over and to test one after another of that long list of remedies recommended for this disorder, in order to realize their worthlessness. The socalled "successive treatments" with emetine recommended by Chauffard and taken up by Mauté, also the emetine-arsenical treatment of Ravaut and Krolunistky give results that certainly are remarkable in the disease for which we thus far have been powerless. But, the results from these courses are uncertain and rarely final in the treatment of chronic amebic dysentery. As to khôsham (C. Lemoine), thorium sulphate (Frouin), simaruba, Brazilian ipecac, or ipecac with calomel or with quinine (Ronald Ross), and, lastly, the local treatments (Friedel), these usually only produce nausea, while the brief periods of improvement to which they give rise can not properly be called cures.

Pathologic Findings in Twenty-five Patients

Having treated 35 cases of chronic amebiasis by the classical methods, and with many resulting failures, we now desire to report the results secured with emetine and bismuth iodide in 25 additional patients. We shall describe the various observations we made in these cases, since they appear to justify practical and useful conclusions for future action in the treatment of chronic amebiasis.

The 25 patients whom we have treated in this way presented, all of them, the well-known signs of chronic dysentery. Eight of them had contracted their disease outside of France, namely, at Salonica, at the Dardanelles, in Morocco, in Tongking, Tunis, and Cambodia. In one of them, the attack had occurred eighteeen years ago, in a second, it was seven years ago. In the last six cases, the disease had lasted one, two, and three years; and this was true for all those, more numerous, others that had become infected at the French front in the present war.

In some patients, the attack had been quite sudden. At first, there were ten to fifteen dejections a day; these being slimy, bloody, and accompanied by violent colics, tenesmus, but without fever. Other patients at first had had the symptoms of ordinary gastric disturbances or of a mild dysenteric enteritis, apparently of short duration. Lastly, in some instances, the chronic amebiasis had come on insidiously

*Translated from *Paris Médical* for December 7, 1918.

and with but slight discomfort being experienced; there having been no particular symptoms that would enable one to determine the actual beginning of the disease.

In all of these cases, the fully established chronic dysentery presented itself with the same signs, namely, progressive emaciation, this often amounting to a loss of 10, 15 or 20 kilograms in weight; marked asthenia, that made any prolonged effort impossible and being accompanied by a constant hypotension. Then there came on a simple or even an earthy pallor; in exceptional cases subicterus was present.

As concerns the gastrointestinal canal: the tongue was dirty, there was a lack of appetite or else a capricious appetite. The digestion was sluggish, painful, and accompanied by a sensation of weight and fulness, also somnolency after meals, pyrosis or the expulsion of foul gas.

Diarrhea was either constant or intermittent, interrupted at times by long periods of obstinate constipation. During the intervals between the inflammatory aggravation, the stools became frequent. They occurred especially in the morning or during the night, or, also, both in the day and the night. In some patients, the stools made their appearance only under certain circumstances, and these always were identical, as, for instance, when eating a meal.

Sudden and imperious in its attack, this diarrhea was accompanied by colicky pains in the cecum, in the left iliac fossa and the transverse colon. At other times, the colicky pains were generalized. A constant desire to defecate, tenesmus, and dysuria may be present.

The stools are semisoft, very much like cows' dung, or they are firm. Or, again, they are quite liquid, slimy and blood-stained; most frequently, they are interspersed with mucous and bloody patches.

An examination of the abdomen may, in some cases, prove entirely negative. But, in the majority of the patients, the symptoms vary, including distension or retraction, or a contracted or a flabby abdominal wall. As a rule, deep palpation causes pain, and a contraction of the colon may be discovered, which under the fingers, feels like a cord or thread.

The solar-plexus region also is very sensitive to pressure in most instances, showing an abnormal, excessive irritability. We may add that, in all these patients, the rectoscope discloses, sometimes a simple edema of the mucosa, sometimes a congested condition together with hemorrhagic spots, sometimes more or less extensive ulcerations with surfaces more or less sticky, sometimes even showing actual polypoid degeneration.

Such are the patients whom we have subjected to the treatment with emetine and bismuth iodide. We follow the procedure advocated by Du Mez, also by Lebœuf, namely, giving daily three keratinized [enteric] capsules, these containing 0.06 Gram of the chemical each, one capsule with each meal for a period of twelve days.

As to the Treatment

The treatment is quite disagreeable. Despite the keratin covering of the capsules, the patients suffered from nausea and vomiting. Still, this rarely lasted longer than the first two days, although often recurring during the last two or three days of the course. It seems as though a rapid tolerance for the remedy is established, and that this is destroyed only by virtue of the rapid cumulating of the doses.

The same is true with regard to the diarrhea. The medication always gives rise to it, of a slight degree in some, but very intense and troublesome in others. It always is pronounced especially at the beginning and at the end of the course of the treatment. As Lebœuf has shown, this diarrhea should be deferred to, for, it constitutes an exceedingly useful means of eliminating the intestinal parasites. However, if it becomes too violent, it may be necessary to modify it by means of opium.

Exactly like emetine hydrochloride, the emetine and bismuth iodide is depressing and lowers the blood pressure. When the dosage is excessive or long-continued, or when it is given to patients greatly weakened, the remedy may give rise to the same serious cardiac and respiratory complications, and even may often become fatal, or may lead to alarming emaciation and peripheral neuritis as was observed, after a course of emetine, by Guglielminetti, Snell, Lévy and Bowntree, Johnson and Murphy, Lyons, and Kilgore.

As for ourselves, we have never employed the remedy without at the same time administering cardiac tonics, such as sparteine, camphorated oil or adrenalin. Those patients that were much weakened were, moreover, fed intensively during the period of the treatment. With these few pre-

cautions, we have never encountered the slightest difficulty.

Results of This Treatment

What results have we obtained?

In the case of some of the patients, the results were striking. Thus, one of them (B.—), for instance, had contracted amebiasis in Cambodia, in 1900. He had undergone a great number of courses of treatment, but suffered repeated relapses. After twelve days of our treatment, he was definitely relieved of all amebic cysts, a fact which could not, in any way, be attributed to any previous course of treatment.

One of our confrères, a physician in military service, suffered greatly from amebic dysentery contracted in August, 1917, in Tunis. Thanks to khôsham[1], and to, at least, two hundred hypodermic injections of emetine, he had been enabled, with great difficulty, to remain constantly on duty; however, hindered by exacerbations of his troubles, a victim of chronic diarrhea and suffering from constant lassitude and progressive emaciation. For almost a year, emetine had remained without any effect. But, thanks to the double iodide, this medical officer was relieved of his chronic trouble, and the large number of dysentery-cysts, of which he had been the carrier, at last disappeard. This good effect still continued two months afterward.

In 14 cases out of the 25 that we have treated, the double iodide made it possible for us to secure rapid cures in those cases in which emetine, khôsham, simaruba, arsenobenzol, ipecac, and thermal springs had remained without result. These are results that well may be compared to those reported by Margaret, W. Jepps and Meakins, and by Waddell, Banks, and Watson and King.

However, we also have met with failures. Sometimes a cure was only apparently so. Thus, for instance, in one of our patients, the general condition became superb after two courses of the emetine and bismuth iodide, given with an interval of one month intervening. He seemed clinically cured, yet, nevertheless, continued to give off some amebas in his stools. The rectoscope enabled us to discover that they came from a small rectal ulcer where they proliferated. Local cauterization with silver-nitrate solution and lavage with protargol rapidly effected a cure that was, microscopically, complete.

In this case, the failure was only partial. In others, it was complete. After the twelve doses of the course, our patients continued to lose flesh, to have colics, bloody diarrhea, and to give off amebas and dysentery-cysts in the stools. We were not slow to discover the reason.

Importance of Microbic Symbiosis

All amebic patients in whose cases the double iodide remained without effect, we found, were carriers of associated parasites; that is to say, besides the dysentery-amebas, there were superimposed lamblia, trichomonas or tetramitus.

In the degree in which these additional parasites had not disappared, the double iodide remained almost without effect. One may readily understand this from the following case:

The patient (Chev—) had been treated, two months previously, in Bordeaux, with emetine and bismuth iodide for an old amebic dysentery. The treatment never had produced the slightest improvement and he continued to void five or six bloody stools every day. Examining these dejecta for parasites, we discovered, in addition to numerous dysentery-cysts, innumerable trichomonas. We then subjected this patient promptly to a two-fold treatment, namely, giving him capsules of turpentine and performing lavage with silver-nitrate solution. Already after two weeks, there was visible a startling improvement. The diarrhea was diminished and no longer blood streaked; the general condition was improved; the trichomonas had disappeared. Only dysentery-cysts still were numerous. Then we subjected the patient to another course of the emetine and bismuth iodide. While this had been ineffective the first time in the presence of the trichomonas, the second attempt produced an actual cure, as was fully evidenced by the complete disappearance of the dysentery-cysts. We have been able to examine this patient three months later, when he was about to leave for the front. The clinical and the microscopical cure had been maintained.

The unfavorable influence of trichomonas and of tetramitus is seen even more clearly in the following case:

The patient (Pik—), 28 years old, aviator, had contracted amebic dysentery in the Orient, early in October, 1917. De-

[1]Khōsham, or Kosam: The seeds of brucea sumatrana of southwestern Asia. A Chinese remedy for dysentery and uterine hemorrhage.

spite diverse courses of treatment, his condition remained stationary and exceedingly precarious, until November, 1917.

We examined him on November 21, 1917. At that time, he had from 15 to 20 evacuations a day, which obliged him to get up three or four times during the night. These stools always contained blood and were accompanied by colics and tenesmus. His general condition was bad; asthenia was extreme and anorexia marked; the loss of weight amounted to 10 kilograms.

Rectoscopic examination disclosed numerous ulcerations over the entire surface of the rectal mucosa and, particularly, on the rectal and rectosigmoidal valves. The mucous membrane was swollen and edematous. The specimens taken from the ulcerations showed the presence of trichomonas and tetramitus at the same time, as well as numerous dysentery-amebas constituting the tetragena and minuta varieties.

This patient was promptly subjected to treatment with turpentine. The action of that remedy is rapid; within the first forty-eight hours, the bowel movements are reduced to two or three a day and cease to contain blood. In ten days, this patient already had gained 1 kilogram in weight.

However, renewed examinations demonstrated that some trichomonas and tetramitus still persisted, and these did not disappear entirely until six injections of silver-nitrate solution had been given, together with the turpentine treatment. Furthermore, numerous dysentery-amebas were found again in the feces. Then this patient was put on the double iodide. A course of twelve days at first caused some fatigue and gave rise to vomiting and a temporary recurrence of the diarrhea. But, ten days later, this man's condition again became normal. He had only one stool in twenty-four hours, and this of good consistency; no more colic; the strength and appetite were quickly regained. Repeated examination showed the complete absence of trichomonas and tetramitus, as well as of the cysts and dysentery-entamebas.

The patient left the hospital in the middle of January, 1918, scarcely recognizable because he had gained 15 pounds. We saw him again during a leave of absence four months later. His state of health then was perfect, and he had not experienced the slightest gastrointestinal trouble.

It is relatively easy to relieve the patients of trichomonas and of tetramitus when these infest the intestine. As to the harmful action of the dysentery-amebas and the impossibility of eliminating them from the intestine, where they breed, there seems to be a unanimity of opinion since the publications of Orticoni and Nepveux, Mauté, and Vaccarezza, of Buenos Aires.

The same power to aggravate the situation possibly also belongs to the trichocephales, to the ascarides lumbricoides, even to the entamebas of the colon and certain spirillæ, as we have been able to observe in the number of soldiers who carried the one or the other in very large numbers.

Here, again, appropriate treatment with thymol, wormseed, santonin, arsenic, and small repeated doses of some laxative have quickly caused their extermination. Nevertheless, it is unfortunate if on top of the amebiasis there is found an added infection with lamblia. Unfortunately, this is a particularly frequent occurrence, for, we have established the fact in 11 out of 25 cases treated by us. In these patients, as in those infested by trichomonas and tetramitus, we failed to obtain any results with the double iodide against the amebiasis until the lamblia infection had been removed.

The Refractory Lamblia

But, here, one is confronted by serious difficulties, the majority of the remedies recommended being without effect. Oil of turpentine and colonic lavage with silver-nitrate solution, which are so effective against the other flagellates, are particularly disappointing against lamblia and trichomonas. Only in a small number of cases, have they aided in bringing about the temporary disappearance of these stubborn parasites. Thymol, santonin, and male fern likewise are without effect, and in this our observations agree with those of Goiffon and Roux. The same as they, we have witnessed some good results from the use of arsenicals; but, while they employed either arsenobenzol or galyl, we have made use, especially, of hectin. In one case or another, the disappearance of the lamblia rarely is lasting, so that it is necessary to repeat the treatment several times. The same is true for sulphur, which, when given for ten or fourteen days, in daily doses of from 2 to 6 Grams, has, in our hands, caused the lamblia to disappear with fair regularity. But, again with this remedy, complete sterilization is rare, so that, in order to prevent relapses, the treatment

must be repeated, for a few days, every month. Lastly, in a few infrequent instances, lambliasis resists every known form of treatment.

In conclusion, the main cause of failure in the treatment of chronic amebiasis by means of the iodide of emetine and bismuth is owing to the association of an infection with lamblia to the amebic dysentery. Once the lambliasis has disappeared (which, however, we have just shown not always to be easy), recovery from the amebiasis is rapid.

Complicating Digestive Disorders

A last cause of failure in the treatment of chronic amebiasis lies, when, in connection with the amebic infection, there is either insufficient secretion or intestinal fermentation or an enteroneurosis.

If the treatment remains ineffective in certain cases, it is solely because the physician concentrates his efforts upon the specific treatment, without paying attention to the simultaneous bad functioning of the digestive organs.

According to the circumstances, one must correct any insufficiency in the functioning of the stomach, the pancreas, the biliary apparatus or the intestine that may be associated with the amebiasis. At other times, it may be necessary to combat putrid infection or the intestinal spirilloses that may be associated.

Lastly, in certain cases, the simultaneous treatment of an enteroneurosis or an abdominal sympathosis coexisting with the amebiasis may be indispensable, in order to bring about a permanent recovery. Especially when lamblia infection coexists with the amebiasis, results are rarely obtained, unless the twofold specific treatment is supplemented by one tending to relieve any gastrointestinal insufficiency or gastroenteroneurosis that so frequently are associated with it.

It seems to us very important to keep this rule in mind, which to us seems to hold generally whenever one is called upon to treat victims of chronic dysentery. Moreover, it is the general experience of all students of parasitology that amebas and flagellates never multiply better than in symbiosos in an intestine where numberless pathologenic bacteria already have created a mild enteritis, a soil upon which the higher parasites can thrive more easily.

With one last remark, we will close the subject of treating amebiasis by means of the double iodide of emetine and bismuth.

We have just seen that, by taking the precautions pointed out, this remedy, the double iodide, enables one, better than all others, to bring about an apparent cure. Under present conditions, it is difficult to follow these patients for long periods; in the meantime, though, circumstances have made it possible for us to reexamine some of our former dysenteric patients. Two of them that were dismissed, apparently perfectly cured, four months and six months afterward plainly had a relapse. Consequently, we believe, that, after having effected a cure for the first time, "successive treatments" with the double iodide should be the rule. In conjunction with this, a course with sulphur and oil of turpentine should be prescribed when there coexists an infection with trichomonas and tetramitus or lamblia. According to the peculiarities of the case, every three months, every six months, once a year, or, still better, at the first indication of weakness or of the slightest suspicion of any intestinal trouble, such further treatment should be advised. *For chronic patients, chronic treatment.* That is the only way to avoid relapses, to diminish the danger from the carriers of cysts, who are becoming more and more numerous.

Conclusions

1. The hydrochloride of emetine, which is a marvelous remedy for the treatment of acute amebic dysentery, has but relatively little influence in chronic amebiasis.

2. The double iodide of emetine and bismuth seems to be the remedy of choice against chronic amebic dysentery. It is given for twelve days in doses of 0.18 Gram daily divided into three keratinized capsules during meals. It possesses the same possibilities of danger as does emetine and its employment calls for the same precautions (cardiac tonics, rest.)

3. A simple chronic amebiasis rarely resists the action of the double iodide. Apparent cure is the rule.

4. A cure, on the other hand, is the exception if the amebiasis is complicated by an infection with trichomonas, tetramitus, and, especially, lamblia. The same frequently is true if at the same time there exist in the intestine large numbers of trichocephales, ascaris and, sometimes, entamebae coli.

5. In such cases, the treatment with the iodide of emetine and bismuth alone should

not be attempted. For, it will have no effect, unless the patients first are relieved of the parasites superadded to his amebas.

This preliminary treatment is easy to carry out, except for lamblia, the resistance of which to every remedy tried sometimes is extreme.

6. It is necessary, always, to treat properly any secretory insufficiency of the gastrointestinal tract or any gastroneurosis or enteritis resulting from fermentation, when these are found associated with the amebiasis. To depend solely upon the specific treatment, may result in failure or an uncertain cure.

7. Chronic dysentery being a chronic malady, it requires chronic treatment. Despite the fact that recovery often appears to be perfect and complete, the successive treatments with the double iodide of emetine and bismuth must be rigidly carried out as a matter of routine.

After Thirty Years—XV

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

[*Continued from June issue, p. 409*]

A Sketch from Life

THE doctor sees the seamy side of life. His opportunities for the study of human nature are boundless. Some of his experiences are not pleasant at the time of their occurrence; but when they have receded into the dim and misty past, a little philosophy may enable him, to look back upon them, and even to see that they have a humorous side.

In the first years of my practice, I had a friend. I call him my friend, because he sent me many patients and because he had a blind faith in my somewhat problematical skill. His name was not Dennis Magoun, but that will answer as well as another. Dennis had a rich brogue, a quick wit, a blackthorn stick (of which he was very proud), and, most of the time, a strong breath. When his breath was very strong he also was very affectionate. Dennis was not a German. Mrs. Dennis also was notable for a strong breath, and, on the nights when Dennis brought home his wages, the pitcher made frequent trips to the corner-saloon and the neighbors heard strange sounds issuing from the Magoun home—sounds that suggested the pernicious activity of a blackthorn stick and other movable chattels, and, the next morning their little boy would be sent to the drugstore for 10-cents worth of arnica tincture.

Things went rapidly from bad to worse —at least with Mrs. Dennis. She was one of those that can not stand drink, and, once started upon the downward road, she seemed to find the incline lubricated for the occasion. By the second year of our acquaintance, she was stupidly drunk most of the time. One day, Dennis came to see me, dressed in his best (which included the blackthorn stick of which he was so proud), and informed me that an interesting event was to happen in his family on or about a certain date, and formally engaged my services. I accepted with the best grace that I could muster, although inwardly I hoped and prayed that I might be out when the summons came. But this was not to be.

One still, sultry August afternoon, the messenger found me and I went. The house appeared deserted. I knocked; no answer. I pushed open the door and walked in; no one about. I went through into the kitchen. A half-naked 2-year-old child was wallowing on the dirty floor; a starved-looking cat was foraging among the debris of the breakfast-table; swarms of flies buzzing everywhere only made the pervading silence more impressive, as the novelists say. My nose is a rather wideawake member of my perceptive outfit, and it was my nose that directed my attention to a little bedroom off the kitchen. Looking into it, I saw, lying on the dirty bed, poor Mrs. Magoun. When I state that she was dead-drunk, that she was in the second stage of labor, and that she was afflicted with diarrhea, the

reader's imagination will be able to fill in the details.

For a moment I stood dumbfounded. In those days, Gilbert and Sullivan's operas were in the first flush of their popularity, and a line from the Mikado came into my mind. I exclaimed: "Here's a pretty mess, here's a state of things!" But, something must be done. My first impulse was, to run away from the whole blessed thing; however, a second thought told me that such a course might mean one death, and perhaps two. There was not another soul in the house. I went to the back door and looked around.

Kind-Hearted Mrs. Mulligan

In a neighboring back yard, Mrs. Mulligan was hanging up clothes. I called to her, told her the story in a few words, and begged her to come and help me out. She muttered to herself for a moment and then said: "For the love o' God, I will, an' not for the love o' her!" I could have embraced her for that word. I never knew before what an angel of mercy a pug-nosed, freckle-faced Irish washerwoman could be. If any woman ever deserved to be called a lady, she certainly did. When she reached the bedroom door, she didn't quote the "Mikado", she did better. She stood a moment with her arms akimbo and then she said: "Well, thot's hell!" Volumes could not have said more.

We got through that afternoon somehow, but I have no very distinct recollection of how it was. I do remember, though, that, when I got home, my good wife exclaimed: "What, on earth, is that awful smell on your clothes?" To which I replied: "I guess you smell sewer-gas."

Another Experience

A year and a half passed by. It was the coldest evening of an unusually cold winter. I had never received a dollar from Dennis for my services; not, indeed, from lack of good-will on his part, but, simply because it was a contest between the saloonkeeper and myself as to which of us should lay hold of Dennis's spare cash. The saloonkeeper saw him oftener than I did; so, he won. But, as both Dennis and the saloonkeeper sent me patients from time to time, I had never made any disturbance about the bill.

On the evening in question, after driving all day in the cold, I had just finished a good hot dinner, lighted a fragrant cigar, and drawn up my easychair before the grate, where blazed cheerily a generous lump of cannel-coal (which, by the way, makes about the most cheerful fire in the world, except, perhaps, dry hickory-wood). I studied the pictures in the fire, while my favorite cat curled himself up on my lap, purring loudly as he lay looking up at me with his big yellow eyes, as if he were trying to tell me what a good time we were both having.

But, alas for a doctor's leisure! "There ain't no sich animile." Does he ever plan a bit of enjoyment that some unhappy patient does not come to spoil? The doorbell rang. It was Dennis Magoun. I presume that my welcome was not a very cordial one, for, he rather apologetically begged me to come with him as two of his children were, he feared, very ill. As usual, he was well primed with liquor, but able to walk fairly straight. I got ready and we started out. As we went down the steps he handed me two silver dollars, with an apology, because it was not more. Five minutes later, as we walked along, he again handed me two silver dollars, and another apology. He was just drunk enough to have forgotten his first burst of generosity. The thing was becoming interesting. Would he forget again? Sure enough. As we crossed Twelfth Street, he handed me a third two dollars and a third apology.

I began to speculate on the question of just what amount of whisky would be necessary to produce the correct degree of forgetfulness and to prick the conscience just enough to produce such auspicious results. Also, would it be practicable to figure out a plan by which the method could be applied to some of my other debtors that were incorrigible when sober? When we reached Thirteenth Street, Dennis turned toward the east. I said: "Here, you don't live down that way!" "No," he replied, "but, Mrs. McPhail took the children over to her house this afternoon." But, he could not locate Mrs. McPhail's house. He had forgotten the number, so many houses looked alike, and, under the circumstances, his poor befuddled brain was helpless.

Again I thought of the Mikado: "Here's a state of things!" The thermometer far below zero, and two men, one drunk and the other mad clear through, trying to

find a metaphorical needle in a haystack. Luckily, chance favored us.

Another Irish Samaritan Woman

I saw a woman come out from between two houses. Hailing her, I told her our predicament. It was Mrs. McPhail, herself. She had just taken the children back home and was starting out to look for Dennis.

When we arrived at the Magoun home, we found the house cold. The only fire was in the cook-stove, and that was so nearly out that the cat had crept into the bake-oven to keep warm. Mrs. Magoun was in bed, helplessly drunk. The children were with her, and it needed but a glance to see that both of them were desperately sick with pneumonia. So, I turned to Dennis and said: "Dennis, you will have to brace up. Those children may die before morning. If they do, the coroner will hold you responsible for carelessness and you will find yourself in a pretty bad fix."

That frightened the old toper and partly sobered him. He got busy and built a good fire. Mrs. McPhail volunteered to go to the drugstore for the medicine and to stay at the house and see to it that the children got it regularly during the night. I charged Dennis strictly to keep a good fire, to see to it that Mrs. McPhail had everything she might need, and not to touch a drop of liquor the rest of the night. He did it; he literally watched and prayed all night. And the children got well!

A few blocks down the street, a rich man's only child, too, lay sick with pneumonia. It had trained nurses, several doctors, and all that money could provide. It had a happy and useful life to look forward to. This child died.

[*To be concluded.*]

2920 Warren Ave.

Quinine and Urea Hydrochloride for Local Anesthesia

By H. F. McMECHAN, M. D., Avon Lake, Ohio

ALTHOUGH quinine and urea hydrochloride was discovered by Driguine, in 1881, it was not until 1905 that Henri Thibault disclosed its anesthetic properties while administering it to himself for malaria. In 1907, he reported further experiments with it and its use for local anesthesia, 1907, but, it remained for A. E. Hertzler to develop its underlying physiopathology and wide utility.

Its Pharmacology

According to Schaffer (*Drugg. Circ. Feb.* 10, 1910), this double salt of quinine is a combination, in crystal-form, of one molecule of quinine hydrochloride and one molecule of urea hydrochloride. It is marketed in the form of powder, tablets, and percentage-solutions in ampules. The powder is soluble in equal parts of water, forming a strongly acid solution. Other soluble salts of quinine are as effective; however, quinine and urea hydrochloride is the most available one. J. Morgenroth (*Berlin. Klin. Wochensch,* 1912, *No.* 46, *and* 1913, No. 8) announced a substitute product known as isoamylhydrocuprein hydrochloride, crediting it with 20 times the analgesic efficacy of that of quinine-urea and a duration-period of forty hours. Hertzler employed the latter in 0.1-percent solutions and found its histochemical and anesthetic action about equal to that of a dose of quinine-urea hydrochloride of ten times this strength.

Solutions should be freshly made just before being used. The quinine-urea may be dissolved in water, physiologic saline or Ringer's fluid, and it may be combined with procaine, with or without the addition of adrenalin. Its solution may be sterilized by means of boiling.

Action Upon the Tissues

A. E. Hertzler, ("Surgical Operations with Local Anesthesia," 2nd Edit.), details his study of the action of quinine-urea on the tissues as follows:

"When a soluble salt of quinine is injected into the tissues, it causes within a few minutes, an amorphous exudate, which forms granular fibrin, the coagulation of

which is complete in from twelve to twenty-four hours. The skin so infiltrated is thickened and has a reddish color, suggesting a cellular infiltration, but, is not tender to touch and sections show no round cells. The fibrin fills the spaces among the connective-tissue fibrils, displacing them, but leaving them for the most part unchanged. This granular fibrin is absorbed in from one to two weeks, leaving the injected tissues in a normal condition."

"When quinine-urea solution is injected into the nerve-sheaths, granular fibrin forms among the nerve-fibers, displacing and compressing them, but, producing no apparent changes in the fibers themselves. This observation indicates that the solutions of quinine-urea are harmless when injected into mixed nerves for the relief of pain. The exudate is not an edema, because it is spontaneously coagulable and forms a substance capable of reacting to specific fibrin-dyes. Contrary to an edematous reaction, the exudate of quinine-urea is itself a first step toward repair, although a misdirected one, but can be effectively put to use if intelligently handled."

When primary union is desired, incision should rapidly follow injection and the excess of solution in the tissues be allowed to escape. This provides briefer anesthesia, but, allows immediate wound healing. When primary union is not possible and prolonged anesthesia is desired, it is important to have the solution remain in the tissues and produce granular fibrin, the pressure of which limits hemorrhage in certain wounds and the slow resorption of which prolongs analgesia in certain operations in which after-pain is a prominent feature.

This reaction of quinine-urea is controllable by the use of definite percentage-strengths of solutions and especially by the addition of varying amounts of adrenalin, which, on account of its vasoconstrictor action, lessens the preliminary dilatation of the capillaries produced by the quinine. By varying the amount of adrenalin, Hertzler, has been able to limit anesthesia to two hours and to extend it for several days.

Mucous Surfaces

Quinine-urea topically applied acts less promptly than does cocaine or procaine, but, is less toxic when absorbed and its effect is more prolonged, while its use is seldom accompanied by secondary oozing. The immediate effect is, a slight burning-sensation, followed by increased secretion of mucus, this necessitating frequent changes of swabs and packs.

With solutions of from 5- to 10-percent, local anesthesia for nasal operations may be secured by topical application the contact of the saturated pledgets being maintained for from fifteen to thirty minutes. Too great pressure of the pledgets lessens capillary activity and delays absorption. The pledgets should be changed at least three or four times. Excess of the solution should not be allowed to seep into the patient's mouth, as the bitter taste is not appreciated.

The quinine-urea reaction may be partly controlled by the topical application of adrenalin, which shrinks the tissues considerably, although not to the same extent as will cocaine or procaine-adrenalin solutions.

While the urinary bladder may be satisfactorily obtunded by means of quinine-urea solutions, sacral blocking is proving so much more effective that topical applications for intravesical manipulations are falling into disuse.

Toxicity and Necrosis

While O. E. Clossom has found, experimentally, quinine-urea toxic to cavies clinically, this analgesic seems to be innocuous so far as toxic symptoms are concerned, except very occasionally for the incidence of quinine-rash in susceptible individuals. Brewster has administered 100 grains of it, in one patient, for pernicious malaria, with recovery both from the malaria and the quinine.

Necrosis may result from technical errors, such as injecting excessive amounts of solution under too much pressure. Edematization with quinine-urea is desirable and permissible only for certain operative procedures, which are to be indicated. Obtunding the parietal peritoneum, as a phase of anocithesia, has had to be abandoned, because of the frequent occurrence of necrosis. With proper care quinine-urea may be employed for infiltration-anesthesia, intra-and perineural blocking, as well as remote anocithesia, without danger of necrosis. In this connection, it is interesting to note that Leigh F. Watson is using the destructive action of quinine-urea in inoperable cases of goiter, for the purpose

of reducing the activity of the gland and abating distressing symptoms.

Solutions of Urea-Quinine

After extended employment, A. E. Hertzler has found a 1-percent solution of quinine-urea sufficient to produce anesthesia under all conditions. When temporary analgesia, only, is required and primary union desired, 0.5 or even 0.25 percent solutions are efficient, if skillfully administered. Solutions should be freshly prepared just before being used, one 2-grain tablet being dissolved in 1 ounce of water, physiologic saline or a 1- or 2-percent calcium-chloride solution, which, sterilized by boiling, serves every routine purpose.

Sequential Use and Combinations of Local Anesthetics

Procaine and quinine-urea should be used sequentially for those parts of the operation for which their respective anesthesia is particularly indicated or for limiting the amount of the more toxic analgesic. Thus, quinine-urea is useful for extensive skin infiltration, while procaine is used for obtunding the underlying tissues. Occasionally, it is worth while to combine these analgesics, to secure the rapidity of action of procaine and the more prolonged analgesic effect of quinine-urea. The proportionate combination, modified by the addition of adrenalin, depends upon the use to which each one is to be put. Thus, in tonsillectomies, the procaine should predominate, as follows:

Combined Solution No. 1.

Procaine	5 grains
Quinine and urea hydrochloride	2 grains
Adrenalin-solution (1:1000)	8 drops
Water, boiled	1 ounce

For operations in the anal region or other locations where the after-pain must be controlled, the quinine-urea should predominate, as shown:

Combined Solution No. 2.

Procaine	5 grains
Quinine and urea hydrochloride	4 grains
Adrenalin-Solution (1:1000)	7 drops
Water, boiled	1 ounce

An Automobile-Pilgrimage in Retrospect

By GEORGE F. BUTLER, A. M., M. D., Wilmette, Illinois
Medical Director, North Shore Health Resort, Winnetka, Illinois.

[*Continued from June issue, page* 406]

LAST summer, I stood on the rim of that stupendous panorama, the Grand Canyon of the Colorado, and looked into depths thousands of feet below the observer's point. The scene never is twice the same. At sunrise, the sun seems to rest upon biers of purple porphyry, while flakes of crushed gems strew his couches with rainbow dust and the spaces are full of rose-red censers edged with gold. At sunset, he seems to hold to the last a gigantic wine-cup brimmed with sparkling wine that spills and trickles down the terraced labyrinth of colossal forms. I speak of this titanic chasm, not, to compare it with the White Mountain notches, but, because I am reminded, as I write, of the magnificent scenery of our own country and the wonder of the immensities of nature, the universal flux, the ever changing process in which naught endures save the flow of energy, and the rational order that pervades it, and the omnipresence of beauty and grandeur. I can not understand how any one can view nature without seeing God in it.

The natural beauties of the White Mountains have been sources of inspiration to a large number of poets and painters; to these lofty summits and tree-clad slopes, we owe some of the best nature-poetry in American literature. Preeminently, however, the poet of the White hills was Whittier. I haven't the space to write of the poems that were inspired by his sojourns in this region, nor of those of other poets that found their inspiration here. Among the artists that have helped to immortalize this region, were George Innes, George L. Brown, Benjamin Champney, A. B. Durand, James A. Suydam, and others. George Loring Brown painted the noted White Mountain picture known as "The Crown of New England", which gives a magnificent view of Mount Washington.

It was purchased by the Prince of Wales, the late King Edward VII, and it now hangs in the gallery of Windsor Castle.

North Conway is a hamlet in this region that you should visit, for, it was the artist-colony of the White Mountains. One who very largely helped to make known the beauties and wonders of the White Hills

Fig. 7. Road through Bretton Woods.

was Frank H. Shapleigh, of Boston. For fifteen years, beginning in 1877, he had a studio at the Crawford house, where we arrived early one afternoon. From here, one gets a fine view of Mount Washington, the highest of all the White Mountains, which rises to an altitude of 6,290 feet. A short distance west, is located one of the most magnificent mountain-resort hotels that I ever have seen—the Mount Washington Hotel, Bretton Woods. (Fig. 7.) The style of the architecture is of the Spanish renaissance. In the summer, this hostelry and its appurtenance constitute a city in itself.

In leaving this delightful section of country for Portland, Maine, let me urge you not to make the mistake of trying to "do" the White Mountains as a part of a motor tour; rather, travel leisurely, stopping for a few days at the various places, from where you can saunter on foot to most-delightful spots inaccessible to any but the foot-traveler. Many of the finest views are still and must ever be reserved for the pedestrian.

Our route from Crawford Notch descends the steep decline of Tug-of-War Hill, passing "Elephants Head" Rock, the Flume Cascade, with its triple fall, and the Silver Cascade, a third of the 900-foot fall of which is visible from the road. Points of natural beauty abound and there are some memorable views as the road proceeds through Bemis, Bartlett, and the sequestered hamlet of Intervale, to the Maine boundary at Fryeburg, in the Saco Valley. One should go, from here, on to Portland, by the way of Poland Spring, for generations one of the most-famous resorts in New England. Much of historic interest attaches to Fryeburg and its neighborhood; the life-stories of Daniel Webster, Henry W. Longfellow, Starr King, William Dean Howells, and other famous Americans are closely associated with it.

Portland, a city of nearly 60,000, has much of interest. On Congress Street, is the Wadsworth-Longfellow house, where the poet lived as a boy and the home of his mother, Zilpah Wadsworth before her marriage. Longfellow's birthplace, however, stands in the easterly part of the city near the harbor, at the corner of Fore and Hancock Streets. Continuing east on Congress Street, we come to the Eastern Promenade, from which one gets a fine view of Casco Bay with its many beautiful islands. I had previously visited this section several times and wish I had the time and space to tell of the enchanted spots on Casco Bay.

From Portland, we traverse south along the coast to Kittery, the last town on our route in Maine. Then cross the Piscataqua River (Fig. 8), which forms the state-line, to Portsmouth, in New Hampshire, where ancient mansions dating from Revolutionary times give the city a quaint, oldtime air. We run through Portsmouth to the

coast-resort of New Castle, remembered as the scene of the Peace Conference that ended the Russia-Japanese War in 1905. Next, Rye Beach, Hampton, and other attractive seaside resorts are passed en route to the Massachusetts boundary at Salisbury. Newburyport, Ipswich, and several other places rich in memories of olden days mark the route to Salem, once the capital of the state.

Salem! How can one motor through this town without thinking of the history of Witchcraft and of Nathaniel Hawthorne! How can he resist stopping over here to visit the site of the old Hawthorne mansion in Herbert Street and other houses where he lived, in Chestnut Street and Mall Street, the Salem Custom House, where he held the post of surveyor and conceived "The Scarlet Letter"? I do not

Fig. 8. A settlement along the road.

know—I couldn't. Just to walk the streets of this old town was well worth the entire trip. When I saw "The House of the Seven Gables", I was reminded of what James Russell Lowell wrote about the story—"the most valuable contribution to New England history that has been made."

It was in Salem, at 21 Union Street, that Hawthorne was born and it was to this town that he returned after being graduated at Bowdoin College, in 1825, and devoted himself to writing fiction. If you are not familiar with Hawthorne's works —and I might ask, who is not?—you should read his life and everything that he has written, and then visit Salem, Concord, Lenox, West Newton—places where he lived and worked; then, after visiting these places, reread his works, and you will be doubly interested. How much of interest in this old town, and how reluctantly we did leave it!

The quaint old city of Gloucester may be visited from Ipswich. The main road is rejoined at Beverly, and the route is south through Lynn and Chelsea into Boston.

The City of Boston

I love Boston. To me, it is the most interesting and attractive city on this continent. Its splendid park-system and beautiful suburbs, its museums, libraries and historic churches, its Bunker Hill and "Silver Winding Charles," its Cambridge and the classic halls of old Harvard, nearby Lexington and Concord, all these, and more, await the tourist with a few days' leisure to spend in America's most historic city.

Boston was planted in prayer and nurtured by spiritual uplifting. It is the city whose "hierarchy was based on education, public service, and the importance of the minister—on culture, philosophic thought, literary art, and the ethics of spirituality." These are the qualities that have made Boston, and will forevermore keep her to be, the "City of Beautiful Ideals." Lilian Whiting says, in "Boston Days"—a book that I advise anyone to read, who contemplates a visit to Boston and is not as familiar with the city and its poets, philosophers, lecturers and teachers as he should be—"It is a fact so remarkable as to be unparalleled in the history of any nation that so large a number of eminent persons should be born within a period of hardly more than twenty years in or near one city, all of whom should be drawn to it by some law of spiritual magnetism, as the scene to be identified with their work and life."

What a wonderful group of men and women appeared there between 1799 and 1823! The age of great men, such as lived in New England in the nineteenth century, I fear is going if not already gone. The epoch of the ant-hill, of life in multiplicity, of mediocrity, in everything is beginning. The century of individualism, of socialism, bolshevism, abstract equality triumphs, runs a great risk of seeing no more true individuals. By continual leveling, society, so called, will become everything and the man be nothing. As the floor of valleys is raised by the denudation and washing down of the mountains, what is average will rise at the expense of what is great. The exceptional will disappear. A plateau with fewer and fewer undulations, without contrasts and without op-

positions—such will be the aspect of human society, if things go on as they are tending. The statistician will, perhaps, register a growing progress and the moralist, a gradual decline: on the one hand, a progress of things; on the other, a decline of souls. The useful will take the place of the beautiful; industry, of art; political economy, of religion; and arithmetic, of poetry. The spleen is becoming the malady of the leveling age. May not the general well-being be purchased too dearly at such a price?

It is well worth one's while to visit the city where lived such men as Choate, Garrison, Whittier, Emerson, Theodore Parker, Wendell Phillips, Thoreau, Charles Sumner, Edward Everett Hale, Bancroft, Robert C. Winthrop, James Freeman Clarke, Phillips Brooks, and a host of others equally famous—a constellation of the nineteenth century, whose illumination has not faded as one by one they have passed on into the Silent Land. I much doubt whether it is possible for anyone to walk the streets of Boston and meditate on the lives and deeds of these men and not be filled with higher ideals and a more genuine love of his country. If your patriotism is becoming a little feeble in these times, visit the Old State House, the Old South Meeting House, and Faneuil Hall, those spared monuments that distinctively commemorate those colonial, provincial, and revolutionary events that make Boston unique among American cities. Then drive into "Little Italy," as that section is now called, and visit the old Christ Church at the foot of Copp's Hill, the "Paul Revere House" in neighboring North Square.

More Historic Ground

When we left Boston, we went by way of Lexington, over the Lexington Road, which leads into the Square at Concord. We went over the same ground that Paul Revere and young Doctor Prescott traveled when bearing the fateful news of the coming of the British. We continued on to the celebrated North Bridge, where occurred the Concord Fight which changed the history of a continent. On one end of the bridge, stands a granite monument commemorating the first forcible resistance to British aggression. By the wall, lie buried the two British privates, and, on the farther bank where the militia had stood, stands Daniel Chester French's noble Minuteman, where was fired "the shot heard around the world."

In Concord, lived Emerson, Hawthorne, Thoreau, Alcott, Louisa Alcott, Frank B. Sanborn, and William Henry Channing—immortals, who left on life and literature a permanent impress. I look upon Concord as the Stratford on Avon of this country. Here was Alcott's School of Philosophy, one of the great contributions to the liberalization of thought. Here lived the greatest philosophers of modern times. The writings of these men alone are more valuable to mankind than are car-loads of the "best sellers" of today.

But, we must look about. At the end of the Square, are Wright's Tavern, where Pitcairn stirred his brandy, and the Meeting House, both of revolutionary interest. On the Lexington Road, we pass "Orchard House," the home of the Alcotts and Hawthorne's "Wayside," and, close beyond, is the cottage of Ephraim Wales Bull, the originator of the Concord grape. Emerson's home is nearby, a white house behind a line of lofty pines and chestnuts. We return to the Square and take the fourth street, the Milldam. At the end of its short length, we turn into Walden Street and drive up Brister's Hill, named for the historic freedman whose cabin and spring near the foot of the hill has been described by Thoreau. A little farther on, lie Walden Woods and the Pond, an irregular body of water of some sixty-four acres, surrounded by woods. Concord's most famous cemetery is Sleepy Hollow. Aside from the interest that arises from its famous graves, there is another, its beauty.

The Concord idyl is the most classic chapter in American history. I have visited Concord many times, and once I was sorely tempted to abandon the practice of medicine and locate there—even went so far as to get an option on the old Alcott home and a rental price on Wright's Tavern. I believe I could have been happy there in literary work, for, as has been so truly said by Allen French: "the hardships and the courage of the founders have left here pathetic and inspiring reminders. The deeds of our ancestors who freed us have their memorial here. Here, too, those great in thought and literary art have carved their message deep. And there is more,

The voiceless generations have left their footprints in this place, so that, from the earliest times till now, the student can trace their progress in all ways that affect human comfort and happiness. In Concord, among so many noble memories, earnest lovers of America will find inspiration for the duties and decisions of today."

From the moment we left Boston, there were objects of vital interest all along the way. Lexington and Concord, however, were of such absorbing interest that we were compelled to spend considerable time there. Indeed, I could spend profitably and joyfully an entire summer in Boston and vicinity; however, our time was limited, so, we bade goodby once more to this beloved section and headed for the home of my young manhood—the Berkshire Hills, by way of the incomparable Mohawk Trail.

Leaving Concord, we pass extensive powder-works in the township of Acton, cross the Assabet River, enter the quiet villages of Stowe and Bolton, and, just

Fig. 9. Luncheon on the mountains, Athol, Mass.

after crossing the Nashua River, we pass the Beaman Oak, the largest oak-tree in Massachusetts, a tree twenty-nine feet in circumference at the base, seventy-five feet in height, with about the same spread. Here Gameliel Beaman settled in 1659. From here, the route continues along the broad valley of the Nashua River to Fitchburg; where, soon after leaving this place, we begin the ascent of the great ridge that divides the waters of central Massachusetts. From here, we went through Westminster, Gardner, Baldwinville, and Athol, a little west of which latter we stopped for luncheon with a party of friends who had driven east from Hoosick Falls and met us there. (Fig. 9.)

The scenery from Orange west is extremely picturesque, the mountains rising sharply from the river to considerable heights. At Turner's Falls, is where, in 1676, Captain Turner, with a force of Colonial soldiers, defeated a band of King Philip's Indians, killing 250 of them, with the loss of but one man. He later was defeated by a rally of the savages and was killed together with many of his men. A half mile or so farther on, the road crosses a suspension bridge over the Connecticut River and climbs a long grade, affording a wide and beautiful view across the valley of the Connecticut, skirts the base of Rocky Mountain, at the lower end of which is a square observation-tower—the Poet's Seat.

We soon enter the beautiful city of Greenfield. From here, we drove three miles south to the old town of Deerfield, the scene of many Indian attacks between the years 1675 and 1709. There are many old colonial houses here. In Memorial Hall, one can see many remarkable collections of Indian and Colonial relics. At the center of the village, is the Soldier's monument and the site of the "Old Indian House," the stout door of which, hacked by the tomahawks of the Indians, is preserved in Memorial Hall. The story of that fearful February night has been sung almost as fully as the siege of Troy. One should see the Old Tavern, or Frary House. Benedict Arnold stopped here in 1775 and bargained in the north front room, then the bar-room, with Colonel Dickinson, for the latter to furnish beef for his force of 400 men. Only one other house now standing shares with the Frary House the honor of having witnessed the memorable massacre; namely, the Willard House, the birthplace of the father of Ethan Allen. Several other fine old houses are left in their primitive state; one of them is the summer home of J. W. Champney, the artist. I visited the old home and met there the widow of the noted artist George Fuller, whose name is Deerfield's pride and glory. Mr. Fuller was one of the strongest, most original and poetic of American figure- and landscape-painters.

[*To be continued.*]

Divulsion of the Anal Sphincter as a Cure for Constipation

By CHARLES C. MILLER, M. D., Chicago, Illinois

IT is my belief that about eight out of ten sufferers from constipation can be cured by a thorough divulsion of the anal sphincter. Constipated people have tight sphincters; a tight sphincter produces constipation; constipation produces a tight sphincter. There is no more perfect illustration of a vicious circle in disease than is seen here. Unless proper measures are taken to correct it, the condition will persist indefinitely.

Constipation develops gradually as the result of a neglect to recognize minor impulses to defecate. The physiological disarrangement that occurs as the result of such neglect is, a contraction and tightening of the sphincter. The mechanism of this process seems to be comparatively simple. A small amount of semifluid fecal material passes into the rectum. It is sufficient to produce a slight impulse to go to stool. This becomes conscious, but, it is not entirely recognized or it is ignored, as it may be inexpedient to satisfy the urge at the time.

There is present a constant downward peristalsis of the musculature of the bowel. An impulse to contract is carried to the sphincter from the centers controlling it. Against the downward impulse of peristalsis, there is opposed the ever increasing tightening of the sphincter. More fecal matter passes downward from the sigmoid flexure into the rectum. Absorption of fluid is constantly taking place, the bowel contents becoming more and more firm. The mass of the stool becomes larger and at the same time more bulky and difficult to pass a spastically contracted sphincter. Eventually, only the strongest of peristaltic impulses, in connection with all the accessory means of expulsion that the subject can bring into play will make expulsion possible.

Thus, defecation occurs only as a result of excessive stimulation of the expulsive mechanism. The passage of the mass through the sphincter does not dilate it sufficiently to cause any relaxation of the muscle. As time goes on, the sphincter becomes constantly in a state of contracture and thus an obstruction to the passage of the intestinal contents, except as the result of excessive stimulation.

The anal sphincter of constipated people is large, firm, and tightly contracted. It is a permanent obstruction to the free movement of the bowels so long as it is allowed to remain in that condition.

The most effective way to dispose of the overdeveloped and overactive sphincter is, to anesthetize the patient and to divulse it thoroughly. Few surgeons realize the importance and the value to the patient which comes from a thorough divulsion of the sphincter. If well done, the muscle is permanently relaxed. It serves perfectly its purpose of retaining the fecal contents until voluntary expulsion is desired, yet, is eliminated as an obstruction to normal bowel passages.

To divulse thoroughly the sphincter, complete surgical anesthesia with ether is required. Divulsion causes deep, irregular inspirations on the part of the patient; therefore, chloroform is particularly dangerous as an anesthetic, unless the anesthetist be expert and advised of the likelihood of the patient taking sudden deep inspirations when the divulsion is begun.

Some operators divulse with a speculum. I prefer the fingers and thumbs. With the index- and the middle-fingers of each hand, the muscle can be stretched and pulled upon until it becomes completely patulous.

Violent jerking with the hands is unnecessary, while just a few tugs are not sufficient. The muscle should be gradually relaxed by firm traction with the two hands until it is flaccid and the rectum patulous.

Unsuspected internal hemorrhoids not infrequently come into sight when thorough divulsion is performed in a patient that has long suffered from constipation. To deal with them, is a simple matter, after the muscle is thoroughly relaxed.

The important points of the after treatment consist in educating the patient to

give attention to the more or less slight impulses to go to stool which occur when the comparatively small amounts of fecal matter accumulate in the rectum. If the patient is sufficiently cognizant of these impulses and a rather coarse and bulky diet is favored for a time, a complete cure of the constipation will occur with such regularity as to surprise the average physician.

Who is Responsible for Drug-Addiction

By CHARLES B. TOWNS, New York City

IT is natural for the average human being always to want to blame something or someone for his own shortcomings, defects or vices. It is a survival of the Paradisian "'Twas the woman that tempted me to eat of the apple" principle. Indeed, it is one of the most mischievous traits that have been handed down to our generation by the ignorance of the ages, and is particularly true of those addicted to the use of drugs or alcohol; for, it has made arrant cowards of thousands and scores of thousands of men, that otherwise might be inclined to face boldly and conquer their degrading habit. And, right here, I want to go on record, once and for all time, to the effect that—all the old grannies in the world to the contrary notwithstanding—there is no such thing as inheriting the alcohol- or the drug-habit.

A man's father and mother—and all his relatives, back to Brian Bhoru or Julius Cæsar—may have been drunkards or opium-smokers or cocaine-snuffers; still, that does not constitute the slightest reason why the man, himself, inevitably must be a drunkard, a "hop-fiend" or a cocaine-user. For, the drug-habit, like any other habit, is an acquired trait; and, acquired traits are not transmissible.

I know that this assertion will cause acute mental discomfort to the many that have made their family and friends, as well as themselves, believe that the unovercomeable and most grave and respectable reason for their excessive indulgence is, that their father or grandfather transmitted to them the "hankering" for the poison. But, there is, in science, absolutely no basis of justification for such a claim.

That Inherited Unstable Nervous System

This does not mean, however, that a man may not inherit an unstable nervous system from ancestors that had systematically poisoned their organisms. A man that has a father whose cells were thoroughly saturated with "booze" and tobacco, could, and probably would, inherit a defective nervous system. But, he could not inherit a craving for narcotics or alcoholics.

Thus, then, get it into the mind of the alcoholic or the habitué, as soon as you can and with all the force of which you are capable, that it is his own lack of nervous stability, and, not the skeleton hand of some dead and gone ancestor, that points him to the road of alcoholism or narcotic addiction. For, no matter how much alcohol or drugs his ancestors may have consumed, it is impossible for anyone to be inoculated by them with a craving for these poisons.

If a man is a drunkard or a habitual user of narcotics, he is so *because he wants to be*, and because he has poisoned his cells so that they continually cry out for more of the stuff that is poisoning them—as is there nature.

It is a fact that, in 90 families out of 100, anyone that looks with sufficient diligence (and most alcoholics can be trusted to do this) can find just such an excuse for his own weakness. In thousands of instances, even physicians have taken seriously such excuses offered by their patients. But, the doctor that listens sympathetically to his patient's babble about heredity is sure to be misled, while the patient that believes this all too commonly accepted theory robs himself of his strongest weapon against his habit—his own conviction of his personal responsibility and power of self-help.

I am not minimizing the fact that certain alcoholics seem foredoomed to drink to excess, because their highly nervous organisms crave the excitation conferred

by alcohol; because they do not get enough to eat; or, because they do not assimilate their food; or, because their tissue-cells cry out for fuel. Still others become alcoholics, because, through the help of stimulants, they have habitually forced themselves to overwork, to bear burdens of responsibility beyond their normal strength, or, to overcome poor health, eye-strain, grief or anxiety.

These people may be physically or mentally abnormal; but, they do not suffer from "alcoholic disease," as such. For, the records of my hospital-work show that, where a patient with an alcoholic history has been scientifically and medically treated for his habit, the definite removal of the craving for alcoholic stimulants is just as effective in his case as in the case of a patient that has no trace of alcoholic taint in his family.

Further, I can show from our case-records and clinical notes that, in the cases in which such a patient, through weakness, relapses into taking stimulants, he never charges that the source of his weakness is a craving for them. The urge may have been psychic—business-troubles, a family-quarrel or what not, but, it was not alcoholic craving in itself.

Alcoholic Disease a Chimera

I want, also, to emphasize, with all the conviction of which I am capable, that there is no such things as an "alcoholic disease". There are diseases engendered by alcoholic poisoning—there are degenerative conditions both of mind and body brought about by alcohol—but, there is no such thing as the "disease of alcoholism".

The alcoholic is a sick man; however, he is sick because of the alcohol used. He is not an alcoholic because of an inherent psychosis that impels him to the use of alcohol.

Another thing, the alcoholic, mentally weakened by the reaction of the stimulant, always ready to shift the blame for his conduct from himself, is chronically afflicted with a craving for sympathy. Mothers, fathers, wives, and friends grant him, not alone pity, but, even tolerance for this state of mind, instead of knocking the psychologically harmful props from under him and making him stand up on his own feet.

Now, the only extent to which a man can be alcoholically diseased is, the extent to which he has been taking alcohol, in such quantities and with such regularity over a certain period, that he has established a definite tolerance. If he has been taking the drug in sufficient amounts, this tolerance would mean, in the end, that, if he were suddenly deprived of his stimulant, delirium tremens and all the unfavorable consequences that may come out of this condition would result.

Delirium tremens is a disease; alcoholic insanity is a disease; but, these have their origin in nothing but alcoholic poisoning. If the man be medically unpoisoned, he can not experience any of these diseased conditions; neither can the unpoisoned alcoholic have any physical or mental craving for alcohol. Further, if he has been drinking moderately or just occasionally, and the period of his present debauch is not too long extended, his alcohol can be stopped without fear of harm whatsoever.

Sickness, worry, unhappy circumstances of every sort must be eliminated as possible excuses for alcohol or drug-indulgence. If they are not, the victim of these habits, although he may gain for a time the mastery of his besetting sin, will presently be certain to furnish himself with an excuse justifying his return to it. Then will come a new downfall, and he will be more difficult to retrieve than in the first instance.

In these circumstances, however (and, unfortunately, there are scores of thousands of these in which the drug has been administered without the knowledge of the addict), the responsibility for the development of his tolerance must rest with the one that first administered or first supplied the drug. In this respect a great army of present drug-takers never were properly safeguarded against forming the habit—much less properly helped in overcoming it.

Physicians Must Bear Much Blame

The average physician, for one thing, never has realized how easily the drug-habit may be established, and, so, in perfectly good faith, he has prescribed opiates for the relief of pain or discomfort, which pain or discomfort it might have been possible to relieve in other ways. So, the patient, naturally, associating his relief with the means adopted to ease him, has persisted in the use of the opiate, when possibly it no longer was necessary. This is particularly true if this suggestion of

relief happens to be associated with the use of the hypodermic. Conservative physicians are so keenly aware of this possibility that some of them go so far as never to carry a hypodermic outfit on their visits; daily observation showing that the average doctor considers the instrument indispensable.

In the case of those that take an opiate in order to blunt pain that can be allayed in no other way, the drug is fulfilling its legitimate and supreme mission. There is no substitute for it. Where it ever was physically necessary and that necessity still continues, an opiate would seem to be inevitable. But, the percentage of such sufferers, as I have said, is small. The overwhelming majority of drug-addicts are impelled to their addiction simply by craving —that intolerable craving that arises from deprivation of the drug.

Many Nurses, Too, at Fault

Nurses, too, have a heavy responsibility to shoulder in respect to drug-addiction. For, scores of thousands of habitués have been broken into the use of the drug that subsequently owned them, body and soul, by a careless nurse, debonairly seeking the easiest way to bring relief—irrespective as to what she might be bringing on while giving this relief.

Until a very few years ago, it used to be the custom, now happily almost defunct, for nurses to resort to the hypodermic under every lightest excuse. Patients had but to complain of pain or distress, when, sometimes without trying, much less even exhausting, other measures for accomplishing the same amount of relief, the ever-ready hypodermic would be produced. So that, by the time the sufferer from articular rheumatism, or neuritis, or gastritis, or asthma was discharged as cured, he was firmly bound in the subtle thread of the drug-habit, as was Gulliver by the Lilliputians. For, the victim learned to know what it was that gave that pleasurable sense of ease. And he knew where to get more—in the form of paregoric and other druggist's devil-brews that take the man out of the human estate and turn the wreck over to the ape and the tiger-nature.

Harmful Galenicals

Yet, when anyone can go into almost any drugstore and buy paregoric, it can readily be understood how upon the laxity of the law that permits this practice there can legitimately be charged a damning responsibility.

Paregoric contains 46.5 percent of alcohol, and 1.9 grains of opium in each fluid ounce. A "shot of booze" that would satisfy the most exacting toper, and a dose of morphine equivalent to that usually given a normal adult. Yet, the sale of this tincture comes within the law that permits the traffic in "remedies" that do not contain more than

"2 grains of opium, or
1/4 grain of morphine, or
1/8 grain of heroin, or
1 grain of codeine, or

any salt or derivative in 1 fluid ounce of liquid, or 1 avoirdupois ounce of solid or semisolid preparation."

Cough mixtures and "anodynes" containing these dangerous habit-forming drugs are sold indiscriminately, practically without let or hindrance, under the mercy of a law that protects the self-sacrificing manufacturers of doped, patent or proprietary medicines in their exploitation of a poisoned public. In fact, the extent to which the manufacture, sale, and use of many so-called "patents" and "proprietaries" are responsible for the growth of drug-addiction is not even now understood. Yet, these preparations are all dispensed within the law. They are part of the regular stock in trade of every drugstore and are sold in the regular course of business, with perfect legal propriety.

Yet, case after case could be cited in which the taking of opiates began with the taking of some proprietary medicine, sold freely, under the present law, in drugstores, without a physician's prescription. The patient goes to a druggist and gets something for headache, neuralgia, insomnia, a troublesome cough or rheumatic or gouty trouble. The "something" he gets contains just enough narcotic to relieve the pain, and, so, the man or woman comes back regularly for more. Thus the habit is established; for, as we have seen, the drug-habit is fixed, not, by the quantity of the drug taken, but, by the regularity with which a quantity, however small, is taken for à period long enough to establish tolerance and fix the habit.

Confirmed drug-habitués have also grown out of the use of "diarrhea-mixtures" containing certain small quantities of opiates that can be prescribed and sold by the

druggist in any amount. I have trustworthy knowledge that, when the Harrison Narcotic Law went into effect, a confirmed opium-taker in a Connecticut village, finding that she would have difficulty in getting her accustomed supply of drug, went to her apothecary in great distress.

She learned from him that paregoric would produce the results that her system had come to demand. She experimented with one bottle of paregoric, and, finding it satisfactory for her purpose, immediately purchased all the paregoric the druggist could sell her—it was no less than eight gallons!

So, no really informed person now questions the fact that the present state and federal laws have not accomplished the purposes for which they were intended.

Yet, neither the medical profession nor the druggists are willing to admit responsibility for the utter inefficiency of the present method of narcotic regulation. Indeed, it is rather significant that the drug interests have officially put their unqualified approval upon the law as it exists at the present time—a *laissez faire* endorsement with a vengeance!

In view of all these facts and in view of the further fact that the situation is rapidly growing worse, all the various interests concerned must be brought to cooperate toward lessening this evil. In no other way, is it possible to fix the responsibility and to correct an iniquity that is perhaps the most debasing and degrading one that has ever been perpetrated by man on his brother man.

Experiences of a "Rookie" Medical Officer

By Lieut. G. H. CONN, M. C., U. S. A., Remount Depot, Camp Taylor, Kentucky

I HAD been practicing medicine in a little country town in northern Ohio for five years before war was declared and was enjoying about as much prosperity as is the lot of the average practitioner; but, there had been so much talk of war that I was very much concerned about it, as I was well within the draft-age and knew that, if war ever came to our country, I would do all that I could to help out as much as possible.

The increasing submarine atrocities and deliberate sinking of American and neutral vessels, both passenger and commercial, were persisted in during the winter of 1916 and the spring of 1917, even after Germany had declared that such practices would be abandoned. The situation during the early part of 1917 was becoming very alarming, and it was thought by almost everyone that a war with Germany was inevitable. At last, the day that had been so long delayed had come and on April 6, 1917, we declared war on Germany.

Secretly, I had been debating, for the last few months before our own country declared war on Germany, as to whether or not I should join the allied cause. So, when our country did enter the war, you can very readily understand how anxious and eager I was to join the colors. I, at once, began to shape my business and professional affairs in a quiet, unsuspecting way for an early enlistment. My folks were very reluctant to see me go into the service at this stage of the war, as they felt that I could be of much service at home and that, under the circumstances, I could, and should, be exempted for the time being; while, no doubt, the war would be over before my services would be in actual demand.

Personally, I felt that I should be back home long before a year was up, and, now, here, at the end of a year, I am wondering whether I may get back to my home even in two more years. There were thousands of professional men in the United States that felt about this just as I did: that the trouble would soon be over and that their business would be ruined; consequently, that the army could get along without them. However, it was not long before the people began to realize that they were facing a gigantic struggle and that we should need almost all, if not all, of our available young men to bring this war to a successful termination.

Taking the Examination

All through the weeks immediately following the declaration of war, my folks

and I debated the question as to my enlistment and, like most other folks that loved their "ain folk" (as Harry Lauder would say), they would not give their consent without a protest against my joining. The time wore on, and finally July 4, 1917, came along. It was only a day or so before that I had made up my mind to go to Columbus, Ohio, and take the examination for a commission.

So, on July 4, 1917, I started for Columbus, and bright and early the next morning I was at the examiner's office

Lieut. G. H. Conn, M. C., U. S. A.

and, after filling out my application-blank and another blank that contained about all the history of myself and ancestors for several generations back, he took me into his private office and proceeded to examine me. You understand that this was the examination to determine my professional qualifications as an officer in the U. S. Army. While it has been quite a little over a year since I took that examination, I can not determine to this day why a lot of the questions that were asked me should enter into such an examination. However, I must have gotten by in pretty good shape, for, after a few minutes, the examiner said to me: "That will do, the stenographer will give you a medical-examination card, then you may take that to the examining surgeon at the barracks." After having the location of the barracks explained to me, I proceeded to that point, to take the physical examination.

It did not take me long to find the building in which the examiner was located, but, I had an awful time getting to his room. I would report first to one soldier at a certain room, sometimes up stairs and sometimes down, and finally, after I had been referred to about every soldier in every room of that vast building, I finally met the man that took me to the place to where I wanted to go.

What a terrible time one has in locating anyone or an organization at an army camp of any kind. No one ever seems to know anything about what you want to find out, and, while I have been in the army now for a year, I find that this is the situation as it always has been and always will be.

The examination was duly begun and it, too, was considerably different from what you would suppose it to be. I do not think there was anything that the officer ever had heard of anyone doing to anybody, in an effort to find out whether his machinery was in good repair, that he did not do to me. He almost ruined my ears trying to find out whether my ear-drums were good or not. I was very fearful that they would not be as good after the examination as they were before. He had a German name, and I almost felt inclined to wage war on him, thinking, maybe, that he was trying to incapacitate in this way as many young men as he could, as an aid to Germany; however, I afterward learned that his methods were perfectly legitimate and in accord with instructions from the war department.

At last, the examination was finished and, as the first examiner had instructed me to return to his office as soon as my physical examination was finished, I did so and reported to him the result of the examination. This being satisfactory, he told me that I was to return to my home and that, no doubt, I should get my com-

mission soon. In about two weeks after returning home, I received notice from the war department that I had been found competent and had been recommended for a commission in the Officers' Reserve Corps of the U. S. Army, and about a week later my commission arrived. I am honest in saying that I was, indeed, quite proud of it. I thought how nice it would be to be an officer in the U. S. Army and to look so spick and span in the olive-drab uniform of the greatest army of the best country in the world and to be admired by all your friends.

Disappointment and Disenchantment Awaited

Little did I think then how much responsibility there is connected with the duties of an army-officer in such a war as this one. It means more to a man from civil life to accept such responsibility than he possibly can imagine; for, no civilian or professional man can ever realize just how great is the difference between the life in the army during wartimes and that of the average homelife. Then, too, the strict discipline in the army and the long hours of hard work are very much different than what many men thought they would be when they entered the army. It is difficult for me, even now after a year's service, to realize how greatly different this life is from the one I had enjoyed previously; nevertheless, for all that, there never has been a time when I regretted my coming into the service.

The next few weeks were full of anticipation and much speculation as to when I should be called and to where I was to be sent. At last, the long-looked-for word arrived, ordering me to camp. In the meantime, I had been busy, as spare time permitted, in getting ready to report when my orders came; but, even so, I was unable to get away in less than two days afterward.

Trials and Tribulations Galore

On the morning of September 24, 1917, I started for the camp, to report for military duty. I doubt very much that you can imagine the many thoughts that passed through my mind that day, unless you have gone through the same experience as I. I wondered what I should say when I reported to the commanding officer, and I wondered how I should say it. I wondered where I was to stay that night and whether I should be allowed to leave the camp. I was very ignorant of military life and military affairs in general, so, you can imagine with what fear and trembling I went to report that day.

How slow the time did pass and how slow the train was running that day! (so it seemed to me). Still, in due time we arrived at a large city within two-hours' ride from the camp, and, here, I had to wait two hours before I could get a train. In this time, my fears somewhat abated and my pulse became almost normal; at last, my train steamed in and I was on my way to camp again. The time, it seemed, would never pass and the distance to my destination seemed much farther than I had been told. At a little past 2 o'clock in the afternoon, we arrived at the camp-city, and, as the camp was just outside the edge of the city, it was not long before I was on my way to the camp in a taxicab.

I was in more difficulties than you can imagine, for, no one that I asked seemed to know where I could find the officer to whom I was to report. I fear to venture making a guess as to the number of soldiers that I asked for the location of the office that I was hunting, but, apparently, they must all have been new to the camp, too, for none of them could tell me. I have often wondered why it is almost always impossible for a soldier to give you much general information about the camp in which he is located. It seems that they very seldom are ever able to give you the location of any branch of service outside their own. I guess that most of them are to busy and do not have time to get such information. What time, during the day, they have, when they are not drilling during the first few days in the camp, they spend in resting. When they do get a little time in which they can look around, the novelty has worn off and they do not make further inquiries.

At last, I found the office where I was to report—and, what a busy-looking place it was! It was an old farmhouse, and, out in front, stood an automobile with a small silk flag on a small pole mounted on the radiator, and on the flag there were two stars. I did not know what that meant, but, I afterward learned that that was the car used by the major-general in command of the camp. A span of horses were being

held by soldiers out in front, and officers and men were constantly going in and out.

Unpleasant Surprises in Store for the Novice

After passing through two rooms, I was shown into the room occupied by the officer to whom I was to report. A very young officer was sitting at the desk and I walked up directly in front of his desk and asked whether the officer that I wanted to see was in, and he informed me that the general was out. However, he inquired about my business, when I said that I was to report as an officer in the U. S. army. He asked me whether I had my orders with me, and, as the papers were in an inside pocket, I laid my hat upon his desk and proceeded to find them. I had no sooner laid my hat on his desk than he made one grab at it and threw it across the room and into the corner, and then said: "What do you mean by reporting here in that kind of outfit? You get out of here and put on a uniform; and don't you come back here until you do get one on, either."

Can you imagine how angry I was and how I wanted to lay hold of that little officer? I just wonder what would have happened if he should have done that to me in civil life; I am almost sure that one of us would have been laid up for repairs. It was a very good thing for me, I guess, that I was nervous and excited all day or I might have done something to him that would have gotten me in bad.

I was ignorant of military deportment and courtesy and did not know then that, when you are in the presence of a superior officer, you should stand at attention, and not support yourself by your hands on his desk or sit down or otherwise make yourself at ease, unless given the command to do so. Anyone just coming from civil life and reporting for military duty is much embarrassed and disturbed even when he receives due encouragement and proper instructions under such conditions; but, the feelings of one who receives such treatment as I did can be understood only from actual experience; and, I give you my word, such experience is the most trying and disagreeable one in the world.

I gathered up my hat and left the office and proceeded to the city to secure the necessary garments in which to report. I did not know what to secure, but, I later learnt that some clerks will sell you a great many things that you do not need and that you never can use. Later developments convinced me that I got a hold of just such a man as that. I bought everything that I thought I should need and some things that I didn't need. Some of the articles I did not know how to use after I had them, among them being a set of spurs that I bought and put on. An officer, who evidently surmised that I was a new one and not acquainted with the regulations governing army-dress, told me that I had them on upside down, and that, anyhow, I need not wear them, unless I was mounted or was wearing boots. I am almost sure that he saved me a lot of embarrassment and a reprimand from the officer to whom I was to report.

I now made inquiry of this new officer friend and he put me on the right track and also informed me that the "Sam Browne" or "Liberty" belt that I had purchased was worn only in France and that it should not be worn in this country at all. Well, even though I never go abroad, the ten dollars I spent for it will not ruin me financially, although it did convince me that it often saves you a lot of worry and anxiety and not a little cash if you will but ask a few questions about matters that concern you but of which you have so little knowledge.

Under the Wire, at Last!

I got information from my acquaintance as to the proper manner to assume when reporting, and, so, on the following morning, I reported to the proper officer. My orders were looked over carefully and a copy was taken of them. Then I was sent to another office with my orders and told to report there. I did so, and from here, after more copying and some questioning, I was given the location of my new quarters and told to proceed there and secure the necessary bed-clothing to make me comfortable.

I arrived at my new quarters and reported to the major in command and, after showing him my orders, I said, "I guess I'll stay in town for a while." The major said, "Come with me" and I did. He led me down the hall to the far end and pushed open a small door and said, "This will be your room, and this is where you'll stay." He led me back to another room and opened that door and there was a long board table and a bench on either

side, and he said to me, "Here is where you will take your meals." I wonder whether I ever shall experience such a sensation again as long as I live; I do not think that I shall, for, here I was with plenty of money to secure what few accommodations I desired, and I was ordered to make the best of what they ordered for me.

What a wonderful lesson I had learned, and here I had been at the camp only two days or really scarcely that. It's a peculiar feeling, though, when you are told to do something that you would not need to do of necessity, yet, know that you must do it. But, then, that is discipline; and there could be no army worthy the name without it. However, the transition from civilian life, where I could do as I pleased, to that of army-life, where I must do what I was told, whether it pleased me or not, was so very sudden that I had not sufficient time to adjust myself to the change. Do you know that a lot of old army-officers call us "Sears-Roebuck officers"?

[*To be continued.*]

Medical Service in the Army: A Retrospect

By A. L. BENEDICT, Buffalo, Late Captain Medical Reserve Corps, U. S. A.

TWO or three weeks after the armistice was declared, the surgeons that had originally belonged to the Medical Reserve Corps or had entered the service, from civil life, after the subdivision of the army had been eliminated, were given blanks upon which they were requested to choose either between immediate and absolute discharge, prompt discharge to the reserve, and permanent retention in the medical corps. The majority of the writer's acquaintances chose the first alternative, as was but natural, since the words "immediate" and "prompt" were understood as being relative terms. The desire of men—who had volunteered for military service solely because of the war and with no intention to make it their life-work—to return home as soon as possible after the cessation of hostilities is easily understood. It seemed, even, that, the shorter the period of actual service, the greater was this desire. This, however, is easily explained, as, after a service of a year or longer, men became accustomed to military life, so that it made little difference to them, financially, whether they delayed their return to private practice for a few months longer or not.

Looking at the matter from the standpoint of the government, it also is easy to comprehend that adherence to the text, that "the last shall be first", by no means was an indication of contrariness, as some declared, but, only the natural desire to retain those more or less trained for the duties connected with the demobilization. The fact, that comparatively few expressed a preference for permanent service, was largely explained by the relatively more advanced ages of successive groups of physicians coming from civil life, the younger men inclining to the army as a vocation, they having, for the most part, already gone in as "regulars" while the distinction remained.

Why They Wish to Get Back Home

We can not, however, ignore the general feeling that military service involves a high degree of discipline, self-denial, and self-repression, and often more or less disagreeable duties, things that do not appeal to a people that thinks as much of liberty as does ours, and that the medical profession, while called upon for self-discipline and self-denial to a considerable degree, is accustomed to nominal independence and to a deference decidedly different from what would be encountered in the army. A surprisingly large number of surgeons admitted, also, that they had earned a great deal more in civil life than their pay and perquisities amounted to. There had been much grumbling by many, some had expressed themselves quite bitterly with regard to the discipline, scant opportunities for promotion, restrictions of practice, disregard for individual preferences, professional or otherwise. Others, however, had highly enjoyed the military life and had, apparently, found nothing irksome in it; some were frankly homesick in differing degrees, while yet others seemed free from this element of discom-

fort. There were great differences—not consistently explained by previous habits and opportunities for self-indulgence—in the amount of subjective discomfort caused by the social and physical hardships of army-life, which, of course, varied greatly in different assignments, even within the same camp or station.

One peculiar fact was, that, while most men, during active service, had welcomed almost any change of station or duty as calculated to mitigate the monotony and to vouchsafe a thrill of excitement, many seemed to base their desire for immediate discharge largely upon the ground that "you can't tell what Uncle Sam is going to order you to do next." While the writer does not recollect that this was given as a reason for desiring immediate discharge and he knows of no one that had suffered from it, nearly all student officers at training camps had, as they came to it in their studies of military matters, objected to the Article of War that renders it possible to try a soldier or officer for almost anything to which his superiors may object, in addition to the comprehensive category of actual offenses both of general and military nature.

Why Americans Dislike Military Life

The fact remains that the average American does not like military service, especially in these times when discipline is exacted in every rank, with increasing severity, and when efficiency and insistence upon industry call for long hours and continued mental and physical strain. So far as can be learned from history and from conversation with Civil and even Spanish-War veterans, this fact seems to be a greater factor than ever before, and, while in many ways the welfare of all has been better secured and, in particular, the possibility of abuses of power by officers over enlisted men has been removed, the military service of all, and especially of officers, is extremely strenuous.

The writer had always accepted it as an axiom of hygiene, that business men and professional men in general can not, as a routine, endure the long hours possible in manual labor, and that mental work requires relative freedom from physical work, except in the form of mild exercise performed solely as a pleasure; and, in particular, that any claim of one's being able to attend continuously to 50 patients a day either is false or means the inclusion of numbers involving merely running through a hospital ward and exercising a nominal oversight over patients otherwise attended to or requiring no attention.

The military experience of the present war has shown that these assumptions have been incorrect, at least as applying for periods of several months, and that the civilian standards of industry for medical practice are very low. Whether the military standards would prove feasible for an indefinite period, at least with allowance for study aside from the actual observation of patients and for the private interests which most men consider necessary, remains an open question. There is a considerable difference in individuals, which can, perhaps, be best illustrated by the writer's personal confession, that the same expenditure of muscular energy and of mental work, if they were susceptible of an analogous quantitation, involves far more fatigue when obligatory than when it is voluntary, according as it does not or does correspond with certain predilections, and that the necessity of accuracy—as in most medical duties—involves an additional strain. Without regard to difference in endurance, muscular and nervous power, some individuals seem to feel fatigue merely in proportion to the actual amount of work done. Obviously, those of the latter class are better adapted to military service of every kind than are others not so constituted.

Some Particular Reasons for Dissatisfaction

Many of the complaints voiced by the temporary surgeons can be reduced to the reaction to the military conception of rank. Generally speaking, the reservemen were subordinated to those of the regular establishment, and all of the latter were, at least, ranked as majors, by the spring of 1918, excepting the very recent appointees, very few of whom would have been in the army if war had not occurred. On the other hand, very few of the reserve men got beyond this rank of major.

Obviously, the opportunities for acquiring strictly professional skill and prestige had been in inverse ratio to rank, in a general comparison between reserves and regulars. Moreover, the former could, in all cases, imagine or pretend to imagine that they possessed high degrees of skill and

prestige, while the latter had been trained to associate authority, even in strictly medical matters, with rank. These conditions inevitably led to friction and dissatisfaction, especially dissatisfaction, as rank has quite an efficient means for eliminating friction of this kind. It was hard for a physician of years and reputation to take orders from a junior (in years), who would have been quite a nonentity in a medical society; just as hard, in fact, if the years represented only two or three quinquenniums from the medical college and if the reputation were purely local or confined to the individual's own self-esteem. Some men were very much impressed with the fact that they had been appointed as specialists and were willing to go outside their specialty only in case of an emergency.

The writer confesses that the subordination of specialties to the three great divisions of medicine, surgery, and laboratory-work, although a very sensible modification of the preliminary announcement of a large number of specialties, was somewhat of a disappointment; still, so far as personal enjoyment and benefit were concerned, the introduction of new or long-disused professional interests was welcome. In some instances, the assumption of special skill on the part of the surgeon was a joke, as for example, when the writer was designated a dermatologist; but, it does not seem to have been carried to the extent of working injury to patients, at least not without the participation of the surgeon himself in the deception. When rank implied sins of commission or omission in regard to therapeutics or even diagonsis, not only personal pride, but, and more especially, professional conscience was involved.

Irksome Limitations

Aside from the direct question of rank, the general orders of the medical department limited both the armamentarium of the surgeon—or, rather, of the physician—and the choice of diagnostic terms. Probably most medical reserve men received from the government from one to several hundred dollars for time spent in devising some way to record a disease that would conform to the established nomenclature and, at the same time, not be absolutely untrue nor susceptible of being utilized to prove their own capacity. In a few instances, in accordance with general regulations or by direct order from higher rank, one had to falsify the records or treat given diseases differently from the way he himself considered proper. There can be no serious objection to being compelled to use a certain prescribed selection of synonyms or of arranging them in reverse order, nor to dispensing with speaking of subacute conditions and terming them acute; but, it does seem that, otherwise, any generally accepted diagnostic term ought to be allowable. It seems even more important that drugs that are official or even are endorsed by a respectable minority of the profession should be available, also that instruments and apparatus should be available at the discretion of the attending surgeons, and that without delay because of red tape, especially when this does not involve any great expenditure of money.

It, furthermore, seems that rank should be abrogated in favor of professional skill, as Civil-War surgeons have declared was the custom at that time. As to this latter point, however, the writer never encountered a case of clearcut violation of the principle involved and alludes merely to general complaints, but, of which he, himself, had no personal knowledge, aside from the somewhat arbitrary establishment of diagnoses and methods of treatment, by rank, on debatable cases.

Quite a number of men in the reserve corps made themselves miserable because of the failure of the proper authorities to recognize their superior qualities.

It was, perhaps, this attitude that rendered necessary a stricter insistence upon rank than otherwise would have been necessary. It was inevitable, in the haste of a sudden enormous extension of the medical department, that commissions should have been bestowed without an absolute correlation of merit and rank. The urgent necessity for general military experience required the rapid promotion, of members of the regular medical corps, to executive positions over volunteer surgeons of greater experience and prestige medically. For a few months, even the latter were promoted, often two grades at once, so as to provide for the large number of higher commands suddenly created; and then followed a long period in which there seldom was the need for officers of high rank,

and in which there rather was an embarrassment of riches in the way of majors.

There were comparatively few cases in which complaint could reasonably be made, either about the rank of the individual—with due regard to the conditions mentioned—or about the abuse of authority—with due regard to the different points of view of the military and of the medical professions. It seemed to the writer that, if any complaint were justified in regard to the practical expressions of the conception of rank, it should have been directed rather at the amateurs than at the professional soldiers. Conditions, in every respect differed widely according to the particular nature of the medical work and the station: in some assignments comparatively low ranks carried great authority and independence, while, in other, majors, at least, occupied subordinate positions. Generally speaking, however, actual practice devolved upon lieutenants and captains, although a good many majors retained at least special or consulting practice. Beyond this rank, the work was almost entirely executive, although many of the higher officers of the regular establishment not only were exceedingly good physicians and surgeons but, applied their professional skill occasionally in ways that were decidedly helpful. As a rule, the volunteer surgeons took to military rank like ducks to water, discarded their civilian title of doctor and did not hesitate to let others know that they had done so. For instance, the writer happened to see a dance-program in which reserve surgeons, with a single exception, had written their military titles, and most of them were not even abbreviated.

That Objectionable "Paper-Work"

Virtually everyone, in all branches of the military service, regular and volunteer, complained of the "paper-work." The writer, never having had an aptitude for business, long ago accepted the fact that all business had to be carried on under an extremely complicated system, which one outside could but vaguely comprehend. He had also been in the habit of making pretty full medical notes. Thus, he was disposed to side with the authorities. However, from the standpoint of efficiency, especially as experience has shown that the demands of medical service in a major war will tax the peace supply of medical practitioners to the utmost, it does seem that there could be a good deal of simplification of detail in regard to professional paper-work; also, that routine business could be more accurately, efficiently, and economically performed by a definite bookkeeping-branch of the service, either as an extension of the quartermaster's department or as an independent staff-branch.

On several occasions, there was great difficulty in securing sufficient medical attendance for patients, so that this paper-work had to be neglected. The amount and the details of paper-work imposed depend largely upon local orders and differ considerably at different stations, of the same kind, base hospitals, for instance, or even in the same station at different times, and they vary still more as between different kinds of stations. In the writer's experience, the paper-work varied from a maximum of nonpertinent data for trivial cases, down to a minimum that had to be supplemented by personal notes, even for keeping track of patients adequately and conveniently.

It is obvious that the paper-work should at all times be adequate, legible, not unnecessarily prolix, and should follow the same general system, yet, allow for individual methods. Most important of all, it should not be so complicated and so personally conducted by the respective directing surgeons as to break down under a peak load, as does occur in times of epidemics. Many surgeons complained bitterly of being degraded to the status of internes. Still, this complaint is, to a large degree, not justified. Surgeons were employed for a line of work that necessarily involved residence and which could not be fairly compared with contribution of services to hospitals in civilian life. By a common inconsistence of human nature, it often happened that the surgeons that complained the most of their socalled "interneship," had never been visiting physicians to hospitals. The complaint was justified, however, in that the position required clerical work from men whose services were offered for more strictly professional duties, and often encroached to an undue degree upon their reasonable demand for rest and even upon the need of actual care of the sick and injured.

It is difficult, though, to see just how this matter can be properly remedied without

there being a definite provision for non-commissioned officers or second lieutenants, these to be drawn deliberately, from medical students or recent graduates, for such duties as assistants and clinical clerks, as such men expect to fill in civil hospitals. This suggestion does not imply so radical a change as might appear, since, in peace, surgeons delegated a good deal of the clerical work to ward-masters that had neither the general nor the medical education of medical, pharmaceutical, and dental students that were in the draft; and the sanitary-corps first lieutenants were largely employed as adjutants, supply-officers, and so forth, during the war. It is not implied that any lower rank than that of first lieutenant is appropriate for fully qualified physicians and dentists; however, the grade of second lieutenant would solve the problem for advanced students and for graduates lacking only clinical experience, and would do greater justice to the pharmacists.

Training-Camp Experience Criticized

In the majority of instances, surgeons complained rather of the training-camp experience than of the conditions of active duty. Given a comparatively short period of training, a young man, more or less athletic, only recently relieved from family, college, and hospital discipline, with personal pride only partly developed, and with the boyhood habit of gregarous life and full occupation of time in short periods persisting, the training-camp life was not particularly irksome. On the other hand, if it were prolonged until lectures and drills were duplicated or triplicated; if the man had cultivated habits of initiative and of working and recreating in private; had long been accustomed to deference and to reliance upon the assistance of others, especially for every task that could be construed as menial, the training-camp life was both fatiguing and mortifying.

And, yet, the principal complaint mostly was difficult of being given expression, and was quite intangible. Men joked about their training for the career of a street-cleaner or domestic servant and took a genuine pride in keeping their barracks and outdoor area properly policed. One of the pleasantest morning that the writer passed was as part of a detail to oil floors—although, in passing, it may be said that the crude oil on the floors was one of the biggest little objections to military service, not so much from the increased fire-risk, as from the labor and the damage to personal effects from the constant presence of so intimate a source of filth. Two things, especially, stick in the writer's crop. One was, an inspection at which the adjutant and two of his assistants ran their fingers through pockets to see whether they were properly buttoned and contained nothing beyond the clean handkerchief allowed. Yet, there is no substantial argument to support the civilian notion that such a procedure ranks just below spitting in one's face. The other thing did not even apply to the writer, but, to a colleague who, at the time, was, virtually a stranger. This man had served in the medical corps during the Spanish War, however, his experience did not properly qualify him for the discipline of the training camp, and he perpetrated the heinous offense of having his blankets and sheets improperly—although neatly—folded. For this, an acting assistant, of maternal canine descent, had him confined to camp for the week end—which period was our sole opportunity of strutting about a near-city and imagining ourselves "gentlemen" and officers. The punishment was quite vicarious, as the man, himself really *preferred* to remain in camp.

As to Other Phases of Camp-Life

As to details of camp-life, there was considerable discrepancy of opinion. Some thought the mess excellent and cheap; others regarded it as of poor quality and objected strenuously to contribution from the mess-fund for the erection of buildings and the creation of a reserve of several thousand dollars. Some considered the horseback exercises as a treat, others really dreaded them. Some of the oldest men with weak hearts enjoyed the drills, while some of the young men complained of the fatigue and sweat. Most of us found the early hours a hardship, still, some joyfully anticipated the first call. There was almost unanimous praise of, and gratitude for, the various special courses of a didactic nature. The great majority felt the same toward the socalled basic course, although many expressed divergent views as to certain particular courses, either as to their intrinsic merits or because of personal limitations of interest. On a few occasions, the special entertainments and lec-

tures were pretty generally regarded as ill advised, apparently even by the authorities, as, when a medical missionary kept us up until we had to undress, for sleep, in the dark or when some thrifty soul in the Surgeon-General's library cut up an old anatomy-atlas into lantern slides. Complaints on this score, however, were based largely upon the fact that everything at camp was compulsory and that a fully planned day from 5:30 o'clock a. m. to 9 p. m. or a little later seemed rather excessive.

The real reason for the aversion of the medical officers to the training camp can not, however, be reduced to any one tangible basis. It was just the general degradation from the independent life of a professional civilian, accustomed to deference and comfort, to that of a cadet, put under a discipline stricter than imposed upon a private, and, yet, burdened with increased responsibility, in addition to lacking the refinements found at the regular military schools at West Point and Annapolis Now, reverse the situation and consider the story of a pompous middle-aged gentleman transformed into a boarding-school boy, then imagine that that school were West Point, with the students quartered in the woodshed, and you will have a better idea of the conditions that can be conveyed by any exact analysis.

Why Volunteering for the Medical Service Lagged

This aversion to the training camp had a sequence that seemed serious at the time and which might have produced disastrous results under such a conceivable circumstance as the continuation of the war. Volunteering for the reserve corps received a serious check, and this was generally regarded as attributable to the fact that the medical profession could read between the lines of the highly enthusiastic and patriotic descriptions of training camps and did receive *sub-rosa* expressions of opinion from those no longer in a position to express themselves openly.

Investigation revealed that much of the complaint was owing, not, indeed, to the intention of those in real authority, but, to the petty zeal of amateur subordinates who failed to realize that loyalty to their own profession and respect for their colleagues were perfectly compatible with loyalty to the country and proper military efficiency. As such a spirit would militate against really efficient service in any duty, and as a very slight modification of discipline and arrangement of schedules would render training camps attractive, the indications for the future afford an excuse, at this juncture, for considering these somewhat trivial complaints.

The writer encountered no instance of avoidance of danger nor of attempt to shirk hard work, neither has he heard any complaint about actual danger or of necessary hardship. Overseas orders and those issued to busy stations were eagerly received. Thus the writer arrived at one station just after the cessation of an epidemic. There was not a word of complaint about overwork or loss of sleep, but, rather, a very general feeling of soreness over an order that surgeons should keep certain hours in their wards, whether they were needed there or not; and still more so over the sarcastic language in which the insistence upon otherwise very reasonable hours of duty was framed. The greatest practical favor which the writer received while in the service was spoiled by the utterly impersonal manner in which it was given. As it is, he feels no gratitude for that favor, and owes no apology for this ungracious allusion. A master cog in the military machine simply moved in such a way that the subordinate cog, represented by the writer, could ultimately produce certain results.

Most wearers of silver-service stripes have, also, an invisible chevron on their right sleeve, because of disappointment at not having had the chance to receive a visible one.

More regrettable, still, is the fact that a good many amateur surgeons seem to have received a series of psychic traumatism from quite intangible and indescribable assaults upon their pride. Whether this state of mind is characteristic of the medical profession, hardly can be determined.

It is unfortunate and, by no means, unimportant, because it is a psychic state and can not be measured in physical terms or by the terms of actual complaints. We doctors should get this sentiment out of our systems and carefully consider whether it is our own fault that it is present in so many, or whether military discipline should be modified so as to conform to civil standards of mutual human relations.

What Others are Doing

MAGNESIUM-SULPHATE SOLUTION IN ERYSIPELAS

Choksy has found (*Lancet*, Feb. 4, 1911) that the application of magnesium sulphate solution is decidedly beneficial in the treatment of erysipelas. Under this dressing, pain and swelling abated, fever decreased, and extension of the process was controlled in the majority of cases. Report of 72 cases of erysipelas treated with wet dressings of a saturated solution of magnesium sulphate in water, as originally advocated by Lucker. He used it in 19 cases of erysipelas variously complicated with alcoholism, acute nephritis, myocarditis, pneumonia, or other conditions, with but 3 deaths resulting, and in 35 uncomplicated cases, with not a single death occurring.

This treatment has been applied by Choksy and others in nearly 700 cases of various forms of inflammation, always with uniformly good results. Lucker originally claimed for it the following advantages: The patient obtains prompt relief from the distressing local symptoms. The temperature rapidly drops to normal, usually during the second twenty-four hours; thus obviating possible complications from a prolongation of the fever. There is no need for internal medication in uncomplicated cases, it only being necessary to restrict the patient to a milk-diet until his temperature again is normal. In Choksy's own cases, pain and swelling abated, fever decreased, and extension of the infection was controlled in all but 6 cases. Many of the cases were in an advanced stage and neglected, consequently, the results were not so uniformly good as those reported by Lucker. In 6 cases, the inflammatory process extended so rapidly that, in addition to this treatment, anti-streptococcus-serum was injected; only 1 of these victims recovering. Excluding the foregoing cases and 7 moribund ones, there remained 59 cases, with 46 recoveries and 13 deaths, equivalent to about 22 percent as compared with about 16 percent in Lucker's complicated cases. (Sajous, "Analytical Cyclopedia of Practical Medicine.")

QUININE IN GRIP

According to the *Gazette des Hôpitaux* for March 22, Professor Michelean, of Bordeaux, recently expressed his astonishment at the disdain manifested by many physicians for the employment of quinine in the treatment of grip. He asserts that the unfavorable opinion concerning the value of quinine is based entirely upon insufficient dosage.

In order to secure good results, according to the author, it is necessary to give, beginning with the first day of the malady, from 1.5 to 2 Grams of the sulphate or hydrochloride of quinine, or to inject subcutaneously at least 1.5 Grams of the hydrochloride, in two doses. Professor Michelean administers daily two injections containing 80 centigrams (0.080) of the hydrochloride of urethane, continuing this treatment for two, three or four, rarely five days. As a rule, the dose may be reduced on the third or fourth day.

According to Professor Micheleau, the results of this course of treatment are surprising. True, there is ringing in the ears; still, all the symptoms of the disease are rapidly relieved without occasioning any unfavorable action upon the heart, as so frequently is observed after improper use of analgesic antifebrile remedies.

REMOVAL OF TONSILS AND ADENOIDS UNDER LOCAL ANESTHESIA

Discussing the subject of local anesthesia in tonsillectomy, Dr. Fielding O. Lewis (*Ther. Gaz.*, May) expresses the advantages of local over general anesthesia as follows: (1) There is less danger of starting up an old tuberculous lesion of the lungs, which is so frequent where general

anesthesia is generally employed. (2) General anesthetics have been known to give rise to nephritis, cardiac and respiratory failure, and insufflation-pneumonia. (3) No instances of abscess of the lung have been reported following tonsillectomy under local anesthesia; while several such have been reported in cases in which inhalation-anesthesia was employed, no doubt in consequence of the insufflation of blood or infective secretions. (4) Local anesthesia is available when general anesthesia is contraindicated, as in chronic nephritis, respiratory disorders, pulmonary tuberculosis, and so forth. (5) the rapidity with which the operation may be executed without the shock following a general anesthetic. (6) When the case is uncomplicated, the method is a timesaver, and it requires fewer assistants and less material.

Doctor Lewis has found local anesthesia unsatisfactory in children under ten or twelve years of age, since it is difficult to make them understand just what is going to be done. When it is attempted in children, the performance usually resembles a fight more than an operation, so that, consequently, there is grave danger of mutilating the surrounding tissues. The measure is, he believes, contraindicated for secondary operations, because of the great amount of scar-tissue present, which often necessitates a protracted dissection. The same is true in the case of persons having had repeated attacks of peritonsillar abscess. Local anesthesia is not entirely satisfactory for highly neurotic patients or those having extremely sensitive throats.

Doctor Lewis believes that many failures attributed to local anesthesia in tonsillectomy are the result of faulty procedure. It must be borne in mind that the tonsil is supplied by a circular plexus of nerves derived from the middle and posterior branches of the sphenopalatine nerve, joining with branches of the glossopharyngeal nerve that enter through and around the capsule of the tonsil. In order to ensure complete anesthesia, the anesthetic must be introduced between the capsule and the muscle.

After tonsillectomy under local anesthesia, the period of convalescence ordinarily is longer and it seems that the patient suffers more postoperative pain.

Local anesthesia in the tonsillar region is not without its dangers. It is possible for an embolus to be introduced into the blood stream by means of the hypodermic needle or for the solution to be injected into the circulation through an anomalous vein. Also a number of deaths have been reported, caused by a local infection at the seat of operation. In one case of collapse of a robust young man, the author was informed that the latter was extremely neurotic. This, of course, is in keeping with the view already expressed, that highly neurotic persons are not good subjects for local anesthesia.

SCOPOLAMINE- AND MORPHINE-NARCOSIS IN CHILDBIRTH

Some years ago, Doctor Das started certain investigations regarding the socalled twilight-sleep method of conducting childbirth (*Calcutta Med. Jour.*; cf. *Ther. Gaz.*, May) and, at the time of his report, had employed this method in 50 cases, 44 of these having occurred in the hospital and 6 in private practice. Doctor Das sets forth that the first 10 of his cases were absolute failures as regards amnesia and he explains this, very correctly, by admitting that, at that time, he had not acquired proper experience in its use and that his selection of cases was not what it should have been.

On the strength of his observations, Doctor Das demands of any physician desirous of adopting the method that he acquaint himself fully with the literature on the subject. He also must have personally witnessed several cases under the direction of one that has had considerable practice with the method.

The attendant physician must thoroughly examine the woman's general condition; take her pelvic measurements, and note the position of the child; also, get a history of her previous deliveries, and ascertain her idiosyncrasy, if any, with respect to drugs.

No physician should attempt to conduct such a case, unless he has the necessary experience to be able to overcome obstetrical interferences.

There should be a specially equipped labor-room, quiet and darkened, and protected against all noise and confusion.

In opposition to other expressed opinions, Doctor Das holds that the physician must be in constant attendance upon the patient or, at least, ready at his residence

or office to start at a moment's notice. As against this, though, other physicians hold that the twilight-sleep method may be employed even though the physician is attending to other patients in the interim; providing, however, that there is a competent nurse in attendance.

Doctor Das asserts that the woman should put on smoked-glass spectacles or that she should be blindfolded, inasmuch as her pupils become dilated. Furthermore, he considers that plugging the ears is helpful in preventing disturbances. The necessity of a trained and trustworthy nurse or midwife has already been mentioned. Everything should be ready for operative interference in case this should be called for.

The first injection should be given when the internal os has dilated enough to admit at least one finger loose or two fingers tight, and when the cervix has been taken up, labor-pains recurring regularly at intervals of not less than fifteen minutes in a primipara. In a multipara, the medication may be started at an early period in the first stage.

The method is contraindicated, however, in all cases of primary uterine inertia, and Das thinks that it should not be employed where operative interference is expected.

THE HEADACHE OF PUBERTY

In discussing the secondary sexual characteristics, Dr. Stephen Chauvet (*Gaz. d Hôp.*, May 1) declares that, in both sexes, there may be observed a retardation in the unfolding of the psychical faculties in youths in whom puberty is not being established normally, owing to an insufficient activity on the part of the internally secreting sexual glands. The differentation of the sexual characteristics takes place insufficiently with the result that maturity is slow in being established. The mind is slow in acquiring the ability to follow certain trains of thought and the power of sustained attention, both of which are the first characteristics of psychic maturity.

In such cases, it is not infrequently seen that these insufficiently developed persons are afflicted with "headache of growth." This headache sometimes is generalized, although more often it is frontal, being localized especially between the eyes. It becomes aggravated by persistent work and by prolonged study. The pain appears especially in daytime, disappearing during the night's rest.

Until recently, this peculiar headache was but badly understood. Mostly, if it persists, physicians advise rest and taking of certain remedies, such as glycerophosphates. Under this mode of treatment, the headache persists for long periods, sometimes for a year or two, while the psychic development does not progress, and these unfortunate youths remain behind their school-mates in their studies.

If, on the other hand, the actual origin of this headache is recognized, it is possible to institute a mode of treatment that will accomplish decided results.

Doctor Chauvet believes that the headache of growth is actually the result of a transitory hypertrophy of the hypophysis, owing to the insufficiency of the function by which the internal secretion of the testicle, or of the ovaries, influences the pituitary gland. Therefore, in his opinion, this headache results from a distention of the capsule of the pituitary gland. It is somewhat similar to the more intense pain that may be observed in the presence of tumors of the hypophysis and, as in the latter case, is occasionally accompanied by stinging pains in the eyeballs. The latter may occur at the same time that the pituitary headache does or in the intervals. They also may be accompanied by pressure-pain in the eyeballs and by asthenopia of accommodation.

The pituitary headache of growth disappears promptly after the administration of testicular extract in adolescent boys or of ovarian substance in adolescent girls.

TREATMENT OF ACUTE MERCURY-BICHLORIDE POISONING

On the occasion of reporting a case of acute mercury-bichloride poisoning, treated by means of a combination of various procedures that have been advised during recent years, Dr. Jacob Rosenbloom (*Amer. Jour. Med. Sci.*, March) present an interesting review of these methods as set down in medical periodicals, most of them American journals.

His studies and experiences have led him to outline a method of treatment to be adopted in cases of mercury-bichloride poisoning, which is as follows:

1. Administer the white of three eggs, beaten up in a quart of milk, and then

empty the stomach by means of siphonage.

2. Give by mouth 300 mils of fresh calcium-sulphide solution containing 1 grain in each 1 ounce of water.

3. Wash out the stomach with the same fresh calcium-sulphide solution: 1 grain in 1 ounce of water.

4. Administer, in powder or tablet form, 0.36 Gram of sodium phosphite and 0.24 Gram of sodium acetate. If this is not available, give the following:

Sodium hypophosphite	1 gram
Water	10 mils
Hydrogen-dioxide solution	5 mils

Use ten times as much of the hypophosphite as the poison taken. Wash out the stomach freely with the foregoing antidote diluted twenty times, and give the undiluted antidote every eight hours during two days.

5. Pour through the stomach-tube, after performing the lavage, a solution of 3 ounces of sodium sulphate in 6 ounces of water containing 5 grains of calcium sulphide. Let this solution remain in the stomach.

6. Give intravenously, after withdrawing 600 mils of blood, 800 mils of Fischer's solution[1] or of bicarbonate-glucose solution.

7. Wash out the stomach morning and night, giving by the mouth, after each washing, 5 grains of calcium sulphide dissolved in 3 ounces of water. Continue this lavage until the stomach-washings are free from mercury when tested by Elliott's method[2] and until the urine is free from mercury.

8. Perform high colon-irrigation with warm water morning and evening, using 8 gallons of the water for each treatment.

9. Give a hot-pack twice daily.

10. Give 8 ounces of milk to drink every second hour.

11. Give, every second hour, 8 ounces of the following solution, by mouth, alternating with the milk:

Potassium bitartrate	1 dr.
Sodium citrate	1 dr.
Sucrose	1 dr.
Lactose	4 drs.
Lemon-juice	1 oz.
Boiled water	16 ozs.

12. Force the patient to drink large quantities of some alkaline water, such as Celestin's Vichy or Kalak water.

13. Prescribe a low-fat and low-protein and high-carbohydrate diet for four weeks. Avoid salt in food, as it favors the absorption of the mercury.

14. Give, by continuous proctoclysis, a solution containing in each pint 1 dram of potassium acetate, 4 drams of glucose, and 3 drams of sodium bicarbonate.

15. Keep the urine alkaline to methyl-red.

16. Continue the rest of the treatment until recovery, usually a period of three weeks.

ABUSE OF ALCOHOLIC-RUBS

The wisdom of employing alcohol internally for medicinal purposes is very generally doubted, there being relatively few physicians at the present time who care to insist upon the superiority of this remedy in certain emergencies. In general, it is agreed that, almost without exception, any indication for alcohol-stimulation that may arise can be met satisfactorily with other means.

However, the utilization of spirit of wine as an external application is universally accepted as proper. The babes in the cradle, especially of the well-to-do, the aged, the socalled neurasthenics, virtually all hospital-patients from the time that they enter until they leave, all are given alcohol-rubs. Nurses, both "trained" and "practical", administer an alcohol-rub after each bath, whether it be a tub-bath or sponge-bath, as a rite, the nonobservance of which would seem to carry with it serious consequences.

Dr. Nathan Rosewater (*N. Y. Med. Journ.*, March 22) asserts that alcohol absorbed into the skin stimulates the tissues and becomes more or less absorbed and diffused into the circulation, where it ultimately must lead to similar damage as would alcohol taken internally. He asserts that fever-patients are effectually cooled, and the fever is satisfactory reduced by sponging with warm or cold water. The water, he says, should be made slightly alkaline, either with soda or with sodium phosphate, because this is better than alcohol.

Especially does Doctor Rosewater object to the indiscriminate employment of

[1] Fischer's solution is a solution of sodium chloride, 14 Grams, and sodium carbonate, 20 Grams, in 1000 mils of water; used by rectal or intravenous injection in anuria from Bright's disease and eclampsia.

[2] Elliott's method was described in the *Journal of the American Medical Association*, June 9, 1917, p. 1693.

alcohol-rubs, maintaining that in every instance these should be deliberately prescribed by a physician and never be left to the decision of the nurse or other attendant layman.

DANGER IN TONSIL-OPERATIONS

Discussing the various problems of tonsil-operation, Pfister (*Wis. Med. Jour.*, February) asserts that every tonsil-operation is a major operation. As it can hardly be classed with emergency-operations, the physician advising it assumes full responsibility for any accident that may occur in connection with it.

The principal danger of tonsil-operations lies in the anesthesia; that is to say: in the asphyxiation through the aspiration of blood clots; in the immediate or possible postoperative hemorrhage; in the pneumonia following the operation, usually because of blood aspiration; and in the so-called status lymphaticus.

One of the principal factors in assuring a good and safe operation is, that it be performed in a hospital, and that the patient remain there at least twenty-four hours. Only where hospital-facilities are not available (which, at present, is not of frequent occurrence), should a house-operation be considered.

While local anesthesia, where it is indicated and possible, virtually is free from danger, inhalation-anesthesia is extremely difficult of execution, because anesthetists and operators necessarily interfere with each other, and more or less bleeding adds to the difficulties. Doctor Pfister favors a procedure, such as the Sluder operation, that makes it possible to finish before the patient wakes up. In this manner, he holds, the chief danger is eliminated. Moreover, it is possible to prevent the swallowing of the ether-saliva mixture and the danger of asphyxiation from a blood clot, because the reflexes are reestablished much earlier.

The patient is placed face down immediately after the operation and kept so afterward when in bed. It may be said here that the anesthesia has unjustly been blamed for many a death, when, in fact, the actual cause was, asphyxiation.

Cases of much bleeding have become less frequent since tonsil-operations are being done almost exclusively in the hospital. Still, hemorrhage is liable to occur at three distinct periods. First, during the operation, when, as a rule, it can be arrested by means of prolonged sponge-pressure, although sometimes employment of the artery-forceps or a ligature may become necessary. In extreme cases, a small sponge may be placed between the pillars (where the tonsil was), the pillars being sewed together with two silk stitches and the sponge left in for twenty-four hours.

The second period of hemorrhage starts within twelve hours of the operation, and it usually is brought about by retching and by restlessness of the patient. This may prove extremely dangerous, because often it is not discovered early enough.

The third period is between the eighth and tenth days after the operation. Here a clot between the pillars has organized and become infected and causes bleeding when detached. Any such clot must be rubbed off whenever discovered and the surface swabbed with a solution of tincture of iron.

THE ETIOLOGY OF MIGRAINE

Reviewing the various theories that have been advanced in the attempt to find an explanation of the origin and nature of migraine, Drs. Mary P. S. Rupert and Elizabeth E. Wilson (*Amer. Jour. Med. Sci.*, March) conclude that the symptoms of migraine arise from stimulation of certain areas in the central nervous system and that this stimulation may be provoked in many ways: by pressure, by reflex stimulation or by circulation of certain toxic substances in the blood.

In their attempt to determine the nature of the toxin, or toxins, the authors undertook careful studies of the gastric contents and of the feces of patients afflicted with migraine. It was found that many of these patients register an abnormally high blood pressure during the attack. Furthermore, patients having frequent, and severe, attacks of migraine exhibit, during the latter, some abnormality of the stools, usually putrefaction, with alternations in the blood pressure, and these usually are accompanied by a depression of the renal function, including some disturbance of the nitrogen output.

The variation of blood pressure between attacks corresponds with the findings in

the stool. For instance, a persistently low blood-pressure reading is likely to be associated with an occasional putrefactive movement and, as this condition is corrected, the attacks become less in frequency and severity. In some cases, there then occurs an improvement in the blood pressure between attacks.

It still is to be determined where and what is the source of the irritation, and the authors are extending their investigations in this direction, namely, the attempt to discover the probable caustic toxin.

SUMMER-DIARRHEA OF INFANTS, AND THE HOUSE-FLY

In a brief article on epidemic summer-diarrhea of infants, Dr. Vincent J. Glover (*Med. Times,* Lond., May) so graphically describes the pernicious work of the house-fly, in propagating the infection responsible for infantile diarrhea, that his remarks are worthy of repetition. Dr. Glover says:

"The infectious virus appears to be a bacillus isolated from many stools by De Morgan, at the Lister Institute. The habitat is decaying animal or vegetable matter. The house-fly frequents such material to deposit its eggs therein, remaining motionless, while doing so, for some seven and a half minutes, carrying away the organisms adherent to the sticky fluid which exudes from the sucker-extremities of the hollow hairlets on the pulvilli of its legs, and also ingested into its stomach and intestine. It infects food or objects, such as sugar, meat, dummy teats, and so forth, by alighting thereon; or fluids, for instance, milk, by dropping therein or by excreting or vomiting upon them.

"Saliva abounds around the mouth of most infants, attracting the fly to alight. I have observed as many as seven house-flies, frequently one or more, inside the mouth of a sleeping infant or upon its moist lips, thereby infecting it. This is the method of infection of the breast-fed infant."

THE RELIEF OF POSTOPERATIVE-PAIN

Aside from the fear, which is natural, of submitting to an anesthetic and to the knife of the operator, an important factor in deciding upon surgical treatment is, the (almost) certainty that there will follow after the operation a period of distress and pain, associated with nausea and vomiting, making the first twenty-four or forty-eight hours after operation a veritable purgatory. Although suitable attention to surgical after-treatment has been strongly emphasized in recent years, and, while the need of it is recognized more and more fully, there still are many surgeons who permit their patients to fight their way through the postoperative distress with but insufficient measures to abate this.

Yet, the relief of pain has been recognized, especially since the remarkable work of Doctor Crile, as an important agency to preserve the strength and increase the recuperative power of the patient and, undoubtedly, the pain following upon operation, as well as the after-pains following upon labor, necessarily exert an unfavorable influence upon the victim.

Reasoning along these lines, Dr. Bertha Van Hoosen (*Boston Med. & Surg. Jour.,* May 15) has attempted to secure for postoperative patients a condition similar to the obstetrical "twilight" sleep. Thus Doctor Van Hoosen reports that 452 patients received the following routine treatment after operation: 1-32 grain of morphine and 1-200 grain of scopolamine every four hours, hypodermically administered and continued for twenty-four, thirty-six, and, in very painful cases, for forty-eight hours after the operation.

While the objective report, compiled from the observation-charts, records that pain has been felt in as many as 23 percent of cases, it is to be observed that, subjectively, the patients either were not fully conscious of their distress or, then, that an actual amnesia was established. At any rate, upon being discharged, they denied having experienced gastric disturbances or any pain whatever since the operation, even though the charts recorded vomiting, complaint of gas-pains, and similar happenings. Upon questioning patients closely as to details of happenings during the first two days following operation, it became evident that not only had they had marked analgesia, but, also, some amnesia.

It follows that postoperative analgesia induced by the methods employed by Doctor Van Hoosen is a valuable method of preserving the patient's strength by preventing nerve-strain.

Let's Talk it Over

Studies on Food-Economics

Count Rumford's Experiences[1]

THE Count, in a curious essay on "The Pleasures of Eating," has the following: "The pleasure enjoyed in eating depends, first, on the agreeableness of the taste of the food, and, secondly, upon its power to affect the palate." Fletcher dwells more particularly on the thorough mastication and insalivation of our food, as ensuring a more perfect digestion. Brillat-Savarin, in his very entertaining and instructive work entitled "Gastronomy as a Fine Art," dwells more particularly on the pleasures to be obtained at the table. The Count, however, treats of both phases of the subject, as will be seen in the following:

"Now, there are many substances extremely cheap, by which very agreeable tastes may be given to food, particularly when the basis, or nutritive substance, of the food is tasteless; and the effect of any kind of palatable solid food (of meat, for instance) upon the organs of taste may be increased, almost indefinitely, by reducing the size of the particles of such food and causing it to act upon the palate by a larger surface. And, if means be used to prevent its being swallowed too soon, which may easily be done, by mixing it with some hard and tasteless substance, such as crumbs of bread rendered hard by toasting or anything else of that kind, by which a long mastication is rendered necessary, the enjoyment of eating may be greatly increased and prolonged." He then adds that "the idea of occupying a person a great while and affording him much pleasure at the same time in eating a small quantity of food may, perhaps, appear ridiculous to some; but, those who consider the matter attentively will perceive that it is very important. It is perhaps as much so as anything that can employ the attention of the philosopher." And further on he says: "If a glutton can be made to gormandize two hours upon two ounces of meat, it is, certainly, much better for him than to give himself an indigestion by eating two pounds in the same time."

This is amusing as well as instructive; so, also, are his researches into which I may venture, in order to describe as the *specific sapidity* of different kinds of food, which he determined by diluting or intermixing them with insipid materials, and thereby ascertaining the amount of surface over which they might be spread before their particular flavor disappeared. And he concluded that a red herring has the highest specific sapidity; that is, the greatest amount of flavor in a given weight of any kind of food he had tested, and that, comparing it on the basis of cost for cost, its superiority is still greater. (I am very fond of red herring.)

He tells us that "the pleasure of eating depends very much, indeed, upon the manner in which the food is applied to the organs of taste," and that he considers "it necessary to mention and even to illustrate in the clearest manner every circumstance which appears to have influence in producing these important effects." As an example of this, I may quote his instructions for eating hasty pudding:

"The pudding is then eaten with a spoon, each spoonful of it being dipped into the sauce before it is carried to the mouth, care being had in taking it up to begin on the outside, near the brim of the plate, and to approach the center by regular advances, in order not to demolish too soon the excavation which forms the reservoir for the sauce."

His solid Indian-corn-pudding is, in like manner, "to be eaten with a knife and fork, beginning at the circumference of the slice, and approaching regularly to-

[1]See this journal, May, page 365.

ward the center, each piece of pudding being taken up with the fork and dipped into the butter or dipped into it in part only, before it is carried to the mouth."

As a supplement to the cheap soup recipes, I will quote one which Rumford gives as the cheapest food that, in his opinion, can be provided in England:

"Take of water 8 gallons, mix it with 5 pounds of barley-meal, boil it to the consistency of a thick jelly; season with salt, vinegar, pepper, sweet herbs, and four red herrings pounded in a mortar. Instead of bread, add 5 pounds of Indian corn made into a samp, and stir it together with a ladle. Serve immediately in portions of 20 ounces." Samp is "said to have been invented by the savages of North America who have no corn-mills." It is Indian corn deprived of its external coat by soaking it ten or twelve hours in a lixivium of water and wood-ashes. This coat or husk, being separated from the kernel, rises to the surface of the water, while the grain remains at the bottom. The separated kernel is stewed for about two days in a kettle of water placed near the fire. "When sufficiently cooked, the kernels will be found to be swelled to a great size and burst open, and this food, which is uncommonly sweet and nourishing, may be used in a great variety of ways; but, the best way of using it is, to mix it with milk and with soups and broths as a substitute for bread."

Rumford prefers this samp to bread, because "it requires more mastication and, consequently, tends more to prolong the pleasure of eating." The cost of this soup, composed of 5 pounds barley-meal, 5 pounds Indian meal, 4 red herrings, with vinegar, salt, pepper, and sweet herbs, in 8 gallons of water, he estimates, at that time, at 8¾ pence. This makes 64 portions, which thus cost rather less than one-third of a penny, or two-thirds of a cent, each. As prices were higher then than now, it comes down to little more than one farthing or one-third of a penny, as stated, when cost of preparation in making on a large scale is included.

I have not been successful in making this soup; failed in the "samp", as explained in the footnote. By substituting "raspings" (the coarse powder rasped off the surface of rolls or overbaked loaves) or bread crumbs browned in an oven, I obtain a fair result for those who have no objection to a diffused flavor of red herring.

By using grated cheese instead of the herring, as well as substituting bread crumbs or raspings for the Indian corn, I have succeeded completely; but, for economy and quality combined, the No. 1 soup, as supplied at Munich, is preferable.

The feeding of the Bavarian soldiers is stated in detail in volume 1 of Rumford's "Essays." I take one characteristic example. It is from an official report on experiments made, "in obedience to the orders of Lieut. General Count Rumford, by Sergeant Wickelhof's mess, in the first company of the first (or Elector's Own) regiment of Grenadiers at Munich." I quote:

June 10th, 1795—Bill of Fare.

Boiled beef, with soup and bread dumplings

Details of Expense

First for the boiled beef and the soup

lbs.	loths.		Kreutzers.
2	0	beef	16
0	1	sweet herbs	1
0	0¼	pepper	0½
0	6	salt	0½
1	14½	ammunition-bread cut fine	2⅞
9	20	water	0
Total 13	9¾	Cost	20⅞

The Bavarian pound is a little less than 1½ pounds avoirdupois, and is divided into 32 loths.

All these are put into an earthenware pot and boiled for two hours and a quarter, then divided into 12 portions of 26 7/10 loths each, costing 1¾ kreutzer.

Second, for the bread dumpling

lbs.	loths.		Kreutzers.
10	13	fine wheat-bread	10
1	0	of fine flour	4½
0	6	salt	0½
3	0	water	0
Total 5	19	Cost	15

This mass was made into dumplings, which were boiled half an hour in clear water. Upon taking them out of the water, they were found to weigh 5 pounds 24 loths, giving 15⅓ loths to each portion, costing 1¼ kreutzer. The meat, soup, and dumplings were served all at once, in the same dish, and were all eaten together at dinner. Each member of the mess was also supplied with 10 loths of rye bread, which cost 5/16 of a kreutzer. Also, with 10 loths of the same for breakfast, an-

other piece of same weight in the afternoon, and another at his supper.

A detailed analysis of this is given, the sum total of which shows that each man received, in avoirdupois weight, daily:

lbs.	ozs.	
2	2	34/100 of solids
1	2	84/100 of "prepared water"
3	5	18/100 total solids and fluids

which cost 5 17/48 kreutzers, or twopence sterling, very nearly.

Other bills of fare of other messes, officially reported, give about the same. This is exclusive of the cost of fuel, and so on, for cooking.

All who are concerned in soup-kitchens or other economic dietaries should carefully study the details supplied in these "Essays" of Count Rumford; they are thoroughly practical, and, although nearly a century old, are highly instructive at the present day.

With the aid of this information, large basins of good nutritious soup might be supplied at one penny per basin, leaving a profit for establishment expenses; and, if such were obtainable at Billingsgate, Smithfield, Leadenhall, Covent Garden, and other markets in London and the provinces, where poor men are working at early hours on cold mornings, the dram-drinking which prevails, with such dire consequences, in such places would be more effectually superseded than by any temperance-missions, which are limited to mere talking.

Such soup is incomparably better than tea or coffee. It should be included in the bill of fare of all the coffee-palaces and such-like establishments in our country.

A. T. Cuzner.

Gilmore, Fla.

CALIFORNIA FOR YOUR VACATION —ANENT THE GRIP

In your March journal, you ask where you might go on your automobile-vacation. There is but one answer, of course: Come to California. Try our hundreds of miles of cement highways, mountains, and ocean-scenery. By great self-restraint, I am able to refrain from mentioning climate, even once.

Now, regarding the Spanish influenza. I have yet to see a statement to the effect that there was a great difference in its virulence in different localities. I think nothing is more certain than this fact; and those gentlemen whose chests have so enlarged over the success of their course of treatment should take notice of it and become more modest.

Charles W. Hardman.

Laton, Calif.

SOME GOOD TIPS DICTATED BY EXPERIENCE

I have used an automobile in my eight years of practice, three years of which was wholly country practice while, in the other five years, a considerable amount of dirt-road driving has been done. During this time, I do not recall having hired a team more than two dozen times, although my total mileage aggregates nearly 45,000 miles. Only twice have my cars failed to bring me home.

I have owned three Fords, one Lambert, one Maxwell, and two Oakland sixes. My present cars are, an enclosed Oakland roadster and a Ford roadster, the former for regular service and the latter for muddy roads and as a relief-car. This gives me a clean car for pavement-work and eliminates the necessity of driving the more expensive one over bad roads.

As to service, the Fords, of course, depreciate less and their upkeep is less; still, one of my Oaklands ran 5,000 miles in regular use, with an average of 20 miles per gallon, and they give from 6,000 to 12,000 miles on tires. My Lambert was a used car and was too early a model to compare favorably with the modern machine. My Maxwell was a disappointment. For every use, the Oakland is almost ideal, being moderate in price, trustworthy, speedy, flexible, good-looking, easy-riding, and economical.

I consider it a wise policy to exchange for a new car after about 10,000 miles, since a busy physician can not spare the time even for minor adjustments that must come with wear.

As for pleasure-trips, my cars have afforded me no small amount of pleasure and relaxation. We have taken a few fairly long drives and in every instance were glad that we chose this mode of travel.

I often wonder what I should do were I compelled to get about as our forefathers did. It is a common occurrence for me

to allot myself but two hours to drive 20 miles, make a call and return. Not so with the men of even fifteen years ago.

D. J. Bowman.

Lincoln, Nebr.

TO THOSE THAT WANT TO KNOW WHERE TO GO ON AN AUTOMOBILE TRIP

Having read in The Clinic a month or two ago that someone around the office there was contemplating an automobile-trip this summer but did not know where to go, I want to extend to him an invitation to come to Colorado. For many reasons, that I have not time to give, this is the best place to go to. First, because it is not too far from home, and then, because you can find here everything, and more than elsewhere, that will add to the pleasure of your vacation.

It is easy to run down to Kansas City, then out through Kansas over the Santa Fé trail, entering the state at La Junta, then on over magnificent roads to Pueblo, Colorado Springs, Manitou, Denver, Estes Park, back through Canyon City, and so forth. This route includes the finest scenery in the world, but, I will leave the description to some enthusiastic press agent.

However, I want to tell you about the facilities available that aid to make the tourist's trip a pleasant one. All of these places have municipal camping-grounds, where you will find a built fireplace for cooking, free wood and water, and plenty of grass and shade. Here, in Pueblo, it is in the parks; at Colorado Springs, on the shore of a beautiful lake; at Canyon City, at the end of a beautifully shaded street. And you will encounter plenty of company. Hundreds of people pitch their tents in these places and make little side trips, returning home every night. If you want to fish and get out into the woods, you will find many places just "over the divide," a few miles from Canyon City, where there are beautiful streams. If you want a little society, go up to Estes Park.

As for equipment, you do not need any advice, since, no doubt, in Chicago, you can buy every convenience calculated to make the trip a pleasant one. However, be sure to fetch a tent that has one side attached to your car. Such a one is much more convenient than a regular tent. Of course, you would want a tent. It would not be an auto-trip if you did not have one. If you have ladies along that do not want to camp out, they can go to the hotel for the night. But, you, yourself, I am sure, would not think of such a thing!

Now, do not plan to go to California. That is too far; also, you will encounter some bad roads, besides days of tiresome travel through the desert.

Oh, *this is the place*. I tried it last summer and had the time of my life; and I expect to go again. You will find swings for the kiddies (if you have any) at the camping-grounds and other things for amusement. Also, you will meet some of the finest people in the world and can sit around the campfire in the evening and gather so much knowledge that you will be satisfied for the whole year to come.

When you come to Pueblo look me up, and I will show you the steel-works out here, at any rate.

Here's wishing you the best time ever, and I hope the little old Ford will carry you around the circle without any mishap. But, maybe you are one of the men that had 700 cases of flu and "never lost a case," and, now, own a Packard.

R. E. Davis.

Pueblo, Colo.

PLEA FOR FREE TRIPS TO THE A. M. A. MEETING

I notice, in all the journals, an appeal for members to attend the annual meeting of the A. M. A. Well, I very much should like to do so, but——

At the beginning of the war, we were called upon to give our services free to the government, and many of us did this, and cheerfully. It cost many of us a great deal of labor and time and a loss of many patients (although most of them, only temporarily). It is out of the question for many of us to attend the meeting and pay our own expenses. The government runs the railroads, and, it seems to me that it would be little enough if the government were to say: "We want you doctors to attend this meeting as our guests." Remember, how much money is being spent for practically useless purposes, in comparison with which this would be but a drop in the bucket.

I have written to *The Journal of the A. M. A.* and to our own "Aid to the Gov-

ernor," and both have replied "Nothin' doin'", "No use to try." Suppose the war is to continue or we must spank Mexico, how many of us are going to rush in and volunteer as we did before?

It is not the question of the money, but, of the spirit of it. Would it not be good for some of us to see something of our country? I don't know just how to put my thoughts into words, but, when I do my best for someone, voluntarily and gladly, I feel him lower, in my estimation, if he shows no appreciation.

A. J. Nossaman.

Pagosa Springs, Colo.

[Certainly, I agree with you that physicians that have been but recently discharged from medical service in the Army should be granted preferred rates for whatever railroad-travel they may desire to undertake. However, the "gratitude" of republics has been a byword since the days of Rome, and wise men content themselves with doing all they can for their country, of which they are justly proud, without expecting anything in return.—Ed.]

AN APPRECIATION

Your booklet, "Your Question Answered," has been received and read carefully, with a great deal of interest. It is a timely and practical little book, and it contains much valuable information. I shall be pleased to receive each succeeding number as it is issued.

I value Clinical Medicine above every other magazine that comes to my desk. It gives me much of value without having to wade through a lot of theory and technical reading.

E. Parrish.

Utica, N. Y.

THE ASSOCIATION OF MILITARY DENTAL SURGEONS

We are informed that the Association of Military Dental Surgeons of the United States will hold its annual meeting at New Orleans, on October 20-24.

This meeting promises to be a highly interesting and important one, since it will be possible by that time to formulate certain practical lessons from the experiences of the dental surgeons in the Army and Navy during the great war. While, naturally, of primary interest to our colleagues, the dentists, physicians also will hear much of interest by attending this meeting, and it is hoped that a large attendance will cooperate in making the annual meeting a successful one.

Information concerning the program, the place of meeting, the possibilities of hotel reservations, and so on, can be obtained from Secretary-Treasurer R. W. Waddell, 347 Fifth Avenue, New York City.

THE ASSOCIATION OF ORIFICIAL SURGEONS

The 32nd Annual Convention of the American Association of Orificial Surgeons will be held September 15-16-17 at the Congress Hotel, Chicago. Forenoons will be given to operative demonstrations at the hospital.

The program will be replete with practical addresses, essays and papers by prominent orificialists. The clinics will be interesting as usual.

Remember, September 15-16-17, Congress Hotel, Chicago.

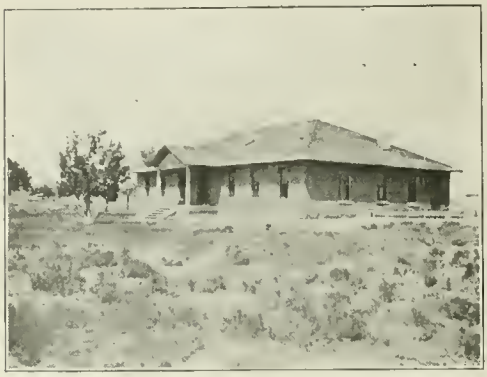
OBSERVATIONS IN SUMMER DISEASES

As I have been a subscriber to Clinical Medicine for a number of years and living in far-away Arizona, where physicians are "few and far between," the editor of Clinical Medicine, in requesting me "to do my bit" in writing for the July number, no doubt thought that I might write an extensive article on summer-diseases, as, in this section of the country, there is much latitude, both geographically and professionally.

Eleven years ago, while in private practice in Denver, Colorado, I was appointed medical missionary to the Navajo Indians settled in northeastern Arizona, this work being under the Board of Home Missions of the Presbyterian Church, and, during this period, I have treated many cases in the hospital-dispensary and in the surrounding country in a radius of many miles.

Every season brings its peculiar disorders. In the winter, it is rhinitis, pharyngitis, laryngitis, tonsillitis, bronchitis, besides a few cases of bronchial and lobar pneumonia, with, possibly, later some cases

of tuberculosis. In the summer, it is acute and chronic gastric catarrh, flatulence and colic, constipation and nausea and vomiting, simple diarrhea, enterocolitis, cholera infantum, chronic gastrointestinal catarrh, besides a few cases of dysentery.



The Hospital.

Consequently, one will be likely to encounter a numberless variety of summer diseases affecting the gastrointestinal tract.

Beginning with the buccal cavity, stomatitis, either catarrhal, parasitic, ulcerative or gangrenous, may be seen, with the catarrhal form predominating. I saw one case of gangrenous stomatitis that terminated in death in a few days. The cause of the catarrhal form is, lack of cleanliness regarding the mucous membrane of

On the Road.

the buccal cavity, exposure to atmospheric changes, unhygienic surroundings and teething. Ordinarily, I use applications of an aqueous solution of boric acid or potassium chlorate or sodium borate or, perhaps, listerine or glycerine, instructing the mother to cleanse the child's mouth with warm water several times a day and also to give it to drink as much warm and cold water as is needed or asked for.

Acute gastric catarrh as a rule is caused by improper diet, such as green fruit and vegetables (apples, melons, corn not in fit condition to be eaten), sometimes by exposure to atmospheric changes, many times to insufficient clothing, in connection with unhygienic surroundings. Often we are not called in till late, so that the malady is well under way, hence, the prognosis is more unfavorable. Usually, we find the patient suffering from headache, nausea and vomiting, coated tongue, slightly raised temperature, rapid pulse and respirations, pain and tenderness in the epigastric region, and constipated bowels. Here I advise hot applications, hot baths, drinking of warm water, perhaps fractional

On a Visit to a Sick Indian.

doses of calomel and soda followed by a laxative saline. If the pain is severe, ginger, peppermint, camphorated or plain tincture of opium, also lime-water, and, in extreme cases, a hypodermic injection of morphine may be given.

In the chronic form, I prescribe tincture of nux vomica, liquor of potassium arsenite or some form of iron and quinine, as bitter and upbuilding tonics, with instruction not to force food upon the patient when there is no desire for it and the patient cannot retain it. If there is nausea and vomiting, I try to ascertain the cause. If the cause be overfeeding or improper food, which is highly probable, I enjoin rest and complete rest for the stomach and intestines for several hours, while I may administer fractional doses of calomel, in conjunction either with sodium bi-

carbonate, bismuth subnitrate or cerium oxalate in small doses; this generally meets the condition.

Simple diarrhea may result from summer-heat, poor hygienic surroundings, dentition, and often from infected milk. There may be nausea and vomiting, the child also being restless, fretful, thirsty, with characteristic pallor. The stools generally are greenish and frequent. As much as is possible, I try to have the mother abstain from food, especially that of a starchy nature, and order the baby to be given to drink, plenty of hot water, preferably such as has been previously boiled. As soon as advisable, I order a dose of castoroil or laxol after an enema of plain warm water. Then, as soon as the bowels have moved, I give bismuth subnitrate, camphorated tincture of opium or some astringent in small doses.

A Missionary Talking to the Indians.

In enterocolitis the symptoms are: diarrhea, pain, nausea and vomiting, and swelling of the abdomen, caused by impure food, sour milk, hot weather, and unhygienic surroundings. The pulse is rapid and weak. The temperature registers 101 to 104 degrees or higher. The skin is hot and dry, stools are frequent, and greenish-yellow. The prognosis often is doubtful and unfavorable, although the patient may recover or the condition may later eventuate in dysentery, which then usually is fatal.

The treatment consists in advising to keep the patient warm by means of warm clothing and applied heat, warm baths, and to discontinue all food. In case any food is allowed, I limit it to meatbroths, alone. As to medical treatment, I rely upon castoroil or fractional doses of calomel and sodium bicarbonate, in addition to bismuth subnitrate, salol or the sulphocarbolates; also some form of opium and, locally, hot applications of oil of turpentine or of mustard upon the abdomen.

The symptoms of cholera infantum are: vomiting and purging, together with colicky pains. Generally it is caused by impure milk. The onset is sudden, with frequent watery stools. There is thirst and restlessness. The temperature runs up to 103 degrees or higher, skin is cold, pulse is very rapid. The prognosis is unfavorable. The treatment consists in giving warm baths, hot application over the abdomen, an enema of warm water, and, if the temperature is very high, one of cold water later. Medical treatment, if it be permitted: A hypodermic injection of morphine and atropine at the beginning and stimulation with strychnine or aromatic spirit of ammonia.

Chronic diarrhea is not so frequent, but, some cases may be encountered, owing, largely, to poor food and insufficient clothing, cold and exposure, rickets, and to other causes in older children. The symptoms are: Emaciation, anemia, eructations, distention of the abdomen, colic, constipation, and diarrhea.

Treatment: Avoid sugar and starch. Feed eggs, fish, lean meat, and vegetables. Order cool baths. Prescribe such medicinal treatment as charcoal, soda-mint tablets, tincture of nux vomica, salol, and the sulphocarholates.

Dysentery. The catarrhal form is the one met with. Causes: Warm weather, impure water, improper diet, principally unripe fruit and vegetables, as the Indians are fond of apples, corn and watermelon. Symptoms: Nausea and vomiting, great abdominal pain, mucoid and bloody stools, somewhat dark coated tongue, fever with thirst, distended abdomen, painful on pressure, with tenesmus.

Treatment: Irrigation of the colon with boiled water; internally, castoroil and, afterward, some form of opium or tinctures of capsicum, ginger, peppermint, or some other anodyne, sedative, astringent or carminative. If the pain and diarrhea are excessive, a hypodermic injection of morphine or codeine may be given.

Constipation is very frequent, both among children and grownups, not only from a lack of knowledge, but, also from

carelessness about evacuating the bowels when nature demands it. It may also be caused by too much proteid diet, both on the part of the mother, as also on the part of the children, as meat is the principal article of diet among the Indians, they often having little else to eat. However, I have noticed a great change for the better in this respect, as, in the past few years, they have been eating more vegetables, fruits, and so on, and, as a result, there is an improvement in their general health. I advise drinking more water, either hot or cold, and less tea and coffee, and, when medication is necessary, as it very often is, I prescribe Waugh's anticonstipation tablets, laxative salines or castoroil, without resorting to anything drastic, if that can be avoided. Later on, tincture of nux vomica or any other intestinal stimulant or tonic that is recommended for constipation is prescribed, if any such is at hand.

James D. Kennedy.

Ganado Apache County, Ariz.

THE CALOMEL-TREATMENT OF THE SUMMER-DIARRHEA OF CHILDHOOD

Years ago, when still a young practitioner, I was accosted on the street by an older and more experienced physician, who engaged me in a friendly conversation. When he inquired as to how I was getting along, I frankly admitted that I was about to lose a little patient out in the country, whose bedside I had just left. I told him how helpless I seemed to be in my efforts to check either the vomiting or the diarrhea. As we were the best of friends, he asked me regarding my course of treatment. After I had briefly outlined this to him, he said: "Now go back and give the child calomel." "But, I have given calomel," I replied. After a further question, I told him how I had ordered a course of calomel on my first visit. Then he said: "Now, doctor, go back and give the baby calomel." "But, how much?" "Give it in 1/10-grain doses." "How long?" "Give it until the baby is well or twenty-one years old."

Grasping at a straw, I turned my super-two horsemobile around and drove back to my little patient. Arrived, I started the child on the new line of calomel-treatment, stopping all other medicinal remedies.

My little patient did not die. I thought this might be a coincidence. But, after seeing many of my friend's patients, as well as my own, recovering under this course, and not a few so after they were given up to die by other physicians, I concluded that there was "something in it." And now, after years of experience, I am willing to venture the assertion that small frequently repeated doses of calomel will cure more cases of gastroenteritis of childhood than will all the other drugs combined. When calomel fails in the disease, I am done with drugs. Even then, many patients will recover, if they are sent to the seaside or to some cool place high up in the mountains.

Harry Reese.

Bisbee, Ariz.

DEATH OF DOCTOR PIXLEY

Old readers of The Alkaloidal Clinic, now Clinical Medicine, will be sorry to learn of the death of Dr. C. S. Pixley, formerly of Winnsboro, South Carolina, who passed away in Los Angeles, on March 21. Doctor Pixley was one of the pioneers in alkaloidal (dosimetric) practice in this country. In the early days, he was associated with our old friend Dr. W. T. Thackeray in the promotion of this idea. Later in life, he developed a theory regarding the etiology and treatment of pellagra, which has been quite largely accepted. This theory was presented in an article published in Clinical Medicine for June and July, 1913. Mrs. Pixley writes us that he had treated nearly 1,500 cases of pellagra, and that among all these but four ended in death.

A CORRECTION

On page 301 of the April number of Clinical Medicine, an article entitled "A Canadian's Experience with Influenza" was credited to Dr. C. E. N. Denman. This, unfortunately, was an error, as is pointed out to us by Dr. A. E. Botsford Denovan, of Leader, Saskatchewan, Canada. However, Doctor Denovan is a good sport and owns up to "careless penmanship". This correction illustrates the point that we made in our editorial on page 331

of our May issue. Let us all take this lesson to heart. Nevertheless, we embrace this opportunity to apologize for the unfortunate error.

WARNING AGAINST SOLICITORS

Lately I have been annoyed by fellows calling at my office, who take up my time trying to sell me mining-stock, oil-stock, farm-land, and various other kinds of promotion-stock. After one unusually glib fellow had bored me for half an hour, the other day, before I could head him off, I wrote the subjoined "notice," had it framed, and hung it in my waiting-room. I am hoping that it will help some. If you deem the idea worth while, you may give it publicity. This is the

NOTICE

I do not want your mining-stock, nor do I need your oil. I have enough of real estate, far more than I can till. If you'll just pass me up on junk, which I do not want to buy, I'll say a little prayer for you and laud you to the sky. I know that you are anxious to make me rich right quick, but, every time that I bought your stuff, I got a golden brick.

So, pass me by, my fluent friends, you have my best regard, but, I don't want to buck a game where Fate has stacked the cards. I've spent enough of kale on graft to buy a city-block, but, to shun the fluent talker, I never have been taught. Experience is a teacher, and, a good one, too, they say; so, pass me by this time, my friend, and let me make my hay.

F. B. Warnock.

Sioux City, Ia.

THOSE COALTAR PRODUCTS

Your article in April Clinical Medicine, in defense of the well-abused and unusually often misused coaltar medicines, is in full accord with the opinion that I have held for many years. However, I am prepared to go further than you have gone, or should be willing to go, in their defense. During the first epidemic of influenza in this country, I began to use combinations containing a coaltar synthetic, generally acetanilid, and have employed them every year since; and, the more I know about them, the better I like them.

In my opinion, it is in the matter of combination that doctors fall down. Prescribed as they generally have been—as indicated in medical literature—they have, in my opinion, been wisely discarded. For more than a quarter of a century, though, I have prescribed suitable combinations in every case of pneumonia, and with only gratifying results.

So very much depends upon appropriate combination. The happy combination of aconitine, digitalin, and veratrine in the dosimetric defervescent tablet is an example. It is so useful in so many acute febrile diseases, while, with the addition of strychnine, where necessary, it is almost never contraindicated in these diseases.

B. Clyne.

Yale, Mich.

SWITZERLAND AND THE WAR

You wish me to tell you something about conditions in Switzerland. As I have only two weeks to spend in America [writing last April.—Ed.] my free time is limited.

Switzerland has, of course, been having a very hard time, being surrounded by countries at war with each other. There, naturally, were internal troubles, as the country was supposed to be absolutely neutral; however, in the northern portion, the inhabitants speak the German language, in the southern section, Italian, while the northwest is more French than France, itself, not only as regards language, but, also in sentiment. The Italian-speaking centers of Tessin were pro-Ally from the beginning, whereas in the German-speaking centers the sentiment was largely pro-German during the first half of the war, although not as markedly pro-German as Geneva was pro-Ally; there was at least an endeavor to appear neutral. This condition produced uneasiness and worse conditions, especially in the two federal houses, the "Nationalrat" and the "Ständerat", the equivalent of our "House" and Senate of Congress. There has been, and still obtains, very hard feeling between the French- and the German-speaking Swiss, which in time may lead to a division of the Swiss government; but,

never to a division of the Swiss confederation.

Exportation, with the exception of war-material for the Allies, has been almost impossible during the last two years, and the financial results are grave. The S. S. S. (Société Surveillance Suisse), which has been in existence for three years, and which represents a control, by the Allies, of all goods imported and exported by Switzerland, has helped somewhat to relieve commercial conditions; still, as manufacturers can get material only sparingly, most of the large factories for embroideries, the spinning- and weaving-mills, the cotton-printing works, the silk-mills, and many others have been obliged to shut down or reduce greatly. This means, of course, a large army of unemployed, with its dire consequences. In spite of the fact that America has helped and still is helping as much as possible, food is scarce and very expensive, costing from two to five times as much as before the war.

Cards for nearly everything are being issued by the Government, being obtainable by every person whose papers are in order. The daily allowance for bread is, 10 ounces, and 1 pint of milk. The monthly food-allowance per adult is as follows: cheese, ½ pound; butter, 3⅓ to 5 ounces; fats (lard, bacon, oil, etc.), 12 to 13 ounces. There are two meatless days per week, veal can be bought only on Saturdays; sugar, 1 pound; rice, 1½ pounds; cereals, 1 pound; flour, 1 pound. The wealthy can buy all these things in an illicit way, paying two and three times the market-value; but, if they are detected, the buyers and sellers are fined heavily, and can be sent to prison. For every meal one eats in a restaurant, one has to give up bread-, fat-, cheese-, and milk-coupons, owing to the scarcity of food-stuffs and other necessities.

Switzerland has been obliged to enforce exceptional measures, such as no one dreamed of before the war. It is practically impossible for a foreigner to enter Switzerland, except on some political mission or on business benefiting the confederation. However, exception sometimes is made, in important business-missions of a private nature, and a permit to stay from four to ten days may be issued. This applies especially when an interned person is ill, in which case, one member of his family is allowed to visit him.

Clothing has become scarce; consequently, all exportation of such, even of worn clothing, is forbidden. The government has established warehouses, at which all second-hand clothing, shoes, and the like, can be bought and sold. Private dealers are not permitted to carry on their trade in these goods.

All these conditions, besides the heavy war- and other taxes imposed upon the people, as well as the four-years' service in the army, which took all able-bodied men, up to a certain age, from their business, in many instances leaving their families destitute, have bred a feeling of uneasiness and discontent.

This was considered, by the socialistic element, an opportune moment for revolution. From Socialism some switched to Bolshevism, a few leaders, such as Platten and other members of the National Council, proclaiming openly their adhesion to the latter doctrine; and, when all the world was rejoicing about the signing of the armistice and beginning of peace, the dark clouds of Bolshevism began to threaten Switzerland. A general strike was proclaimed, which lasted one week during the first half of November last. The army, which had been partly demobilized, had to be remobilized, so as to establish order. The consequence was, the resulting death of hundreds of soldiers from Spanish grip which had almost been stamped out, but, now broke out with renewed fury. Railway- and streetcar-service was stopped for a week, factories were closed, milk and farm-products of every description ceased to enter the cities, and military patrols went through the streets day and night. Fortunately, only few people were killed, although pandemonium reigned everywhere.

After a week of this, the revolutionary leaders were incarcerated and the strike was proclaimed at an end. The feeling of unrest, however, still exists, and the Bolsheviki who, although not numerous, are backed by a socialistic mob, threaten to come out stronger than before. There is reason to believe that they are well supplied with money and arms by the German and Russian Bolsheviki, and it has been proven in court that German propaganda has been carried on for years, aided even

by the diplomatic representatives. However, the anti-Bolshevistic movement and sentiment in Switzerland is very strong, and, although part of the army has been contaminated, if a revolution does start again, it will be of only few days duration, yet, very bloody.

The Swiss have had enough of war and war-conditions and they long for peace and order. As an aid to the faithful part of the army, a national guard has been created, which is well organized and will act at a moment's notice. There exists a very bitter feeling against the Anarchists and Bolshevists, and, if they should try to carry out their plans, the better element of the citizens is ready for them.

Switzerland, a small country of some 3,000,000 inhabitants, has suffered sorely through the war. For quite a long time, the expense of keeping up the army was approximately $200,000 per day, which is an enormous sum for so small a country. Its location made it peculiarly adapted to be of great service to all the countries at war with each other, and we have all heard of the great services performed by the Swiss Red Cross as well as the other societies formed for forwarding mail, research-work for prisoners, transportation of refugees, exchange and transportation of prisoners and wounded soldiers, and the internment of sick prisoners, especially those afflicted with tuberculosis, and the many other humanitarian undertakings.

Switzerland has not broken faith with any country, has kept its neutrality intact, has been of great assistance to all belligerent parties, has suffered much, especially by the paralyzation of its industries, and it now hopes for recognition of the services rendered and of its standing by the League of Nations that is to be. After much undeserved suffering, this little republic is looking for the dawning of a better future.

WILLIAM C. ACHARD,
(of Zürich, Switzerland.)
Gloucester City, N. J.

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[The writer of the foregoing letter, a graduate of the College of Dentistry of the University of Pennsylvania, has practiced his profession in Zürich, Switzerland, since 1897, where, indeed, he was born in 1874 having come to the United States as a young boy and obtained his education here. His many years of residence in that interesting little republic in the heart of Europe, Switzerland, enables him to speak from first-hand knowledge concerning conditions there. Certainly, we can not but sympathize with the Swiss, who did not desire war; who, in a manner of speaking, were in the war, yet, not of it; never taking sides, either as a country or its citizens individually, whatever personal preferences might be, always willing and anxious to aid those victims of the war that might come within the country's boundaries. The humanistic and generous activities of Switzerland, the bitter necessity of its being armed to the teeth for four long years, without being able to hope for any compensation, the serious losses sustained by that country, through no fault of its own, all these things entitle it to our fullest sympathy. Surely, the Peace Congress now meeting in Paris may be expected to recognize the claims of the Swiss people and to provide for suitable remuneration and compensation for its losses.—ED.]

LETTERS FROM FRANCE—X

Nice the Great South of France Leave-Area for the American Army

The Army Headquarters, with a view to making content the men and at the same time keep them away from the great venereal-disease centers of Paris, Lyons, Bordeaux, and other large cities, has created two great leave-areas; one in Savoy in the north of France, with Aix-les-Bains as its center, and another on the Mediterranean, with Nice as the center.

Nice is the greatest American resort in Europe. More Americans gather here during the open season than in any other European pleasure-center. In 1890, Nice was a place of 60,000; it now has a population of 175,000. No city in France has had such a percentage of increase during the past century, and this unprecedented growth can be attributed almost wholly to the American patronage.

As a first step, the Army authorities secured four of the large modern hotels as hospitals for long-term and convalescent patients; the Y. M. C. A. immediately came along and took over the Jetée Promenade, a handsome, imposing building erected over the Sea, and comprising a concert-hall, theater and enormous reception-rooms. Here, the Y. has its headquarters. A military

band gives daily concerts in the great reception-hall, where three thousand can promenade. In another large hall, an orchestra plays afternoons and evenings for dancing. In the concert-hall, there are daily entertainments by the traveling vaudeville and special arists employed by the amusement-department; afternoon-tea is served, with cakes and biscuits, at a minimum cost. An excursion-bureau books those that want to take in the diverse excursions to Mentone, Monte-Carlo, Cannes, Grasse, and the litoral. An information-bureau helps newcomers to locate rooms and boarding-places and gives information as to the fixed rates of various hotels. In the center of the great hall, a canteen is placed, where all the ordinary wants of the men can be supplied at cost.

For the officers, the rooms of one of the city clubs, on the Place Masséna, were requisitioned, comprising reading-, writing-, smoking-, billiard-, card-, and lounging-rooms and a large hall where an orchestra plays afternoons and evenings for dancing, and here I find put in operation, for the first time, a comprehensive and concerted plan for controlling the habituées of a place of amusement created for the benefit of the Army. No woman is admitted, or permitted to enter this club, without having a card of admission.

Application for cards are made by the ladies themselves or by their friends; giving name and residence and the names of two city references. These cards are handed over to a French committee named the Committe of French Homes, who investigate the references and accept or reject the application. This has resulted in bringing together for the afternoon and evening dances the mothers and daughters of the best families and the exclusion of all questionable characters. The cards are issued for a given period, which permits the retiring of any who, by any manner of means, have secured cards and are found to be questionable. I have discovered by personal experience that this control is not perfunctory or of a careless character, but, is careful and thorough in each instance.

Here, also, is a supply-depot of cigars, tobacco, cigarettes, candies, eatables, and little necessaries, very convenient to those constantly coming and going.

The dance hall has been found too small to accommodate the crowds that daily frequent it and arrangements are being made to double the floor-space. So far, not enough ladies appear to pair with the officers, who outnumber them 3 to 1; but, new cards are constantly being issued, and this promises to become the most popular resort in Nice.

A very pretty and commodious theater has been taken over and consecrated to the nightly entertainment of the officers, free of charge, of course, and here there flows the regular stream of Y. M. C. A. corps of entertainers, numbering thousands.

The Red Cross has a commodious club for officers on the Promenade des Anglais, comprising reading-, lounging-, and tea-rooms, where tea and cakes and American homemade pies are served daily free to all in uniform. This one club does not seem to be popular or largely frequented, despite the fact that it is the only resort where refreshments are furnished free; and I think that the chief reason is, that women are not admitted. If the officers were permitted to bring their lady friends, paying for their entertainment, I am of opinion that this club would daily be crowded; for, it looks out over the sea and is commodious and luxuriously furnished; but, afternoon-tea is a distinctly social function and a man does not care to go in and sit alone, no matter what the advantages.

The British Y. M. C. A. has rooms on the Promenade, where real icecream is served three times a week, and this long-unknown luxury brings together a crowd on icecream days. Also, the Knights of Columbus have club-rooms, pleasantly situated and much frequented.

There is a beautiful golf-course, just out of the city, bordering on the sea, and, with the snow-capped mountains for a background, it forms a paradise of beauty these sunshiny days. And, as the wind almost always blows across the water from the south, the players often are seen in their shirt-sleeves; and, with the bright greensward and soft-green olive-trees, it looks and seems like summer.

Nice has two fine public tennis-courts open to officers at one-half rates; also, there is good fishing off any part of the coast, so that from morning to midnight men on leave can find healthy occupation and amusement in the midest of the finest paradise this world can offer. The trans-

portation-authorities have decided to run a special Riviera express for all officers and men proceeding south on leave.

The new service will be known as the "A. E. F. Personnel Special Train Service" and trains will be run between Paris and Mentone daily on and after February 17. The train will be reserved exclusively for A. E. F. personnel, which is understood to include American Red Cross, Y. M. C. A., Knights of Columbus, Salvation-Army nurses, naval attachés, as well as officers and enlisted men of the Army proper. The first northbound train in this service will depart from Mentone on February 18.

The Chief Transportation-Officer for the Paris district announces that, with the inauguration of this service, all A. E. F. personnel will be restricted to the use of this train to and from the Riviera leave-area. The train will carry first- and third-class coaches, and also a sleeping-car. Coffee and sandwiches may be obtained on the southbound trip at Dijon, and, going north, at les Arcs and La Roche.

A. E. F. personnel traveling locally between the several points at which station stops are made, as indicated in the time-table, may use the Riviera leave-train, if capacity admits.

Gray December weather greeted the King and Queen of the Belgians and their elder son on their official visit to Paris yesterday. The day had been declared a public holiday, and the arrangements were practically the same as those for King George's visit last week. As then, too, the capital had set itself to give the warmest possible reception to the modest hero king whose little army broke the first shock of the Hun hordes. Military simplicity marked the official part of the ceremony, but, the popular welcome made full amends for the absence of that pomp and splendor which at the present moment would be out of place. [Written some months ago—Ed.]

The King and Queen left Bruges by train on Wednesday night and were timed to arrive at the Bois de Boulogne station at 2 o'clock in the afternoon. There they were met by the President and Mme. Poincaré, M. Clemenceau, M. Stephen Pichon, and other members of the government, and drove along the famous procession-route: through the Avenue du Bois, Champs Élysées, and Place de la Concorde to the Palace on the Quai D'Orsay, where magnificent apartments had been prepared.

Happily, the rain held off, and, by the time their majesties' arrival was announced by a salvo of guns, an enormous crowd had collected along the line of the route, which was held by weather-stained poilus belonging to famous French regiments. In the first carriage, were King Albert, in Belgian khaki, and President Poincaré. The King was looking characteristically grave and seemed almost astonished at the roar of cheers greeting him.

Next came Queen Elizabeth, the charming and timid heroine of the great Belgian epic, with Mme. Poincaré by her side and Admiral Ronarch seated in front. In the third carriage, was the young Prince Leopold, wearing the khaki uniform and forage-cap of the Belgian infantry, accompanied by M. Clemenceau, who shared the honors of the great popular reception. M. Clemenceau, it was plain, had entirely recovered from his last-week's indisposition and seemed rejuvenated by his visit, with Marshal Foch, to London.

All along the route, the royal visitors had a welcome that proved to them that France does not forget King Albert's heroic behavior of August, 1914.

Across the avenue from the station, were a few hundred British soldiers from the Paris Leave Club, and who had come under escort of two of the club's girl guides, and theirs were almost the first cheers to greet the king and queen. Gravely the king saluted them, and the queen, who was wearing a gray costume trimmed with dark fur, with a little bow, acknowledged the full-throated greeting. Then, it was M. Clemenceau's turn. He has learned during the last few days the quality of British cheering, and when he heard it again he, with a gay little flourish, waved his tall hat to the men.

At half past two, the carriages drew into the courtyard of the Ministry of Foreign Affairs, and the Belgian flag was hoisted alongside the tricolor. As the queen stepped from her carriage, a little unrehearsed incident took place. A Belgian soldier stepped forward from the crowd and offered, as from himself and his comrades, a magnificent bunch of flowers, which the queen accepted with a few kindly words of thanks.

After this outburst, the cheers took the more formal French form of "Vive le

Roi!" "Vive la Belgique!" shouted by deep-feeling, deep-voiced men, and shrilled by women whose voices rang out with even more emotion. The crowd was dense the whole length of the route, and at such points as the Étoile, the Rond Point, and the Concorde, the spectators climbing to every point of vantage on the German guns, the black, leafless trees, the lamp-posts, and even the bas-reliefs of the Arc de Triomphe, gave such a salutation as few men, having earned it, ever have heard.

Here and there in groups, there were children, women, and soldiers of the king's own subjects. They were of those who for four years have lived in exile, and, although bands at every few-score yards greeted them, no finer music could have reached these two sovereigns than the "Brabanconne" sung by the school-children, many of whom were taken from their homes four years ago, babies in arms.

B. Sherwood-Dunn.

Paris, France.

PRACTICE OPENING FOR A CONSUMPTIVE DOCTOR

Have you on your list any young doctor that has tuberculosis and wants to locate in a country where he has any prospect of getting well and at the same time make a good living and some money, besides? If so, I have what he is looking for. I have made enough to quit, and the only way I can get out is, to sell out and get someone else in my place. I have a well-furnished home here, covering a full block, well improved with a seven-room house, a barn, garage, chicken-house, wood-houses, windmill and tank, automobile, 2 good milch-cows, chickens, and so on. The house is furnished. The entire property, invoicing $12,000, is insured for $7,500 for three years, I will take for it $9,000 and all that I reserve is, my personal clothing, light bedding (such as blankets, sheets, and comforters, instruments, and hunting-and fishing-tackle). This is the finest climate on the coast for a tuberculosis-victim. I came here in 1900, broke, and with tubbercles in my sputum. I was told that the best I could figure on was three or four years. I weighed 120 pounds then, now I weigh 175 pounds in shirt sleeves, and have enough to live on without practice.

This is on the top of the Sierra. The temperature gets to zero but very seldom in winter or to 100 in summer. One can use an automobile ten or eleven months in the year. A 5-minutes' walk brings you to a fine trout-stream; in thirty to sixty minutes on any morning in the hunting-season, in the car, you are on the hunting-ground for the mule-tail deer. In summer, during four days, you can take in the Lavas, Klamath Lake, the wonderful Anna and Saudcreek canyons, Crater Lake, and home again. On Sundays, you can take in Fall River and Pitt River Falls, and the wonderful Burney Falls, and be home for dinner. In three days, you can take in Westwood, Bigmeadows, and Mt. Lassen, and back home. With a car, you can go to San Francisco in two days, during ten months of the year. This is a stock- and mining-country, and is in its infancy.

If the aspirant for this place is a good mixer and pretty fair in surgery, he can make his living and have his $9,000 back inside of three years, and hunt and fish sixty days in each year, besides. This matter may be taken up with the Alturas State Bank, which is a very conservative institution; and, I believe, they will tell you that the price asked for what I am offering you is cheap.

C. M. Tinsman.

Adin, Calif.

PRIORITY IN THE USE OF EMETINE IN HEMORRHAGE

I do not wish to steal some one's thunder; still, I used emetine hydrochloride (Abbott) hypodermically for hemoptysis for the first time on January 17, 1916. The patient was a young woman who had been having hemorrhages of the lungs and whose physician had told the family that he could do nothing more. I gave her ½-grain of emetine hypodermically, then, for a short time, followed with 1-6 grain of emetoid, three times a day. The patient had no more hemorrhages for several months. She finally passed out of my care and I lost track of the case; still, I know that for months no more hemorrhages occurred.

Emetine is useful in hemorrhage of the bowel and also in some cases of bleeding from the kidneys.

I carry at all times ½-grain-tablets for emergency-use. If some other brother can

antedate me, I shall be glad to hear of his experiences.

I wish to say, however, that I reported this case once before, having mentioned it in a letter to Doctor Abbott, but it probably was overlooked.

A. T. Botts.

Decatur, Ill.

THE WORK OF RED-CROSS ORGANIZATIONS IN RELATION TO PREVENTIVE MEDICINE

On May 2, Sir Arthur Newsholme, of London, delivered an address, at the National Headquarters of the American Red Cross, on the subject of "the work of Red Cross organizations in relation to the preventive medicine of the future," which had formed the topic of the deliberations of the committee of Red Cross societies of the United States, France, Great Britain, Italy, and Japan, which had been in session at Cannes, France, for the purpose of formulating and proposing to the Red Cross societies of the world an extended program of Red Cross activities in the interest of humanity.

Sir Arthur Newsholme, who is a member of the committee of Red Cross Societies, referred in some detail to the work accomplished by the Red Cross, not only in taking care of the wounded and sick soldiers, nor only in alleviating suffering and aiding in times of accidents (such as the Halifax disaster) but, also, in preventing disease in various ways, as, for instance, by cleaning up the areas around military camps, and thus minimizing the risk of malaria and other communicable diseases, including venereal ones, and assuring good milk supplies and establishing better conditions of sanitation.

The conference at Cannes had set itself the task, especially, to consider means by which the activities of Red Cross workers might be utilized all over the world for the prevention of illness, as well as for the treatment of sick and wounded mankind in general. Doctor Newsholme pointed out the importance of the plan of the Red Cross, by which it was to continue its beneficent activities against the horrors of peace, which, in the aggregate, are even more serious to the human race than are those of war. He showed that the devastation produced by disease in times of peace is greater even than the loss of life from war. This particular point was brought home to us with unusual force during last winter's influenza-epidemic, which demanded more lives in the course of a few months than were sacrificed during the four-and-one-half years' period of the war.

Of course, measures for the prevention of diseases constitute a definite function of the government and can not be enforced by private enterprise. Nevertheless, the true object of all voluntary workers is, to stimulate official public-health work and also to aid it in the manner in which the many Red Cross activities had been and are being carried out so efficiently, with the sanction of the government.

The work of the Red Cross societies, as planned by the Cannes Conference, would be undertaken by an international bureau and by national organizations. The international bureau would act as a great center for collecting information on various public-health subjects, and for digesting it and subsequently distributing it by means of special publications or periodicals. It also would act as a means of educating the general public on urgent problems affecting its welfare, and would be utilized as a center, organizing in less favored communities missions, for the purpose of undertaking local investigations and remedial work.

The central bureau would comprise a number of branches dealing with epidemic diseases, child-welfare, nursing, and allied subjects. Its task would be, to cooperate fully with the National Red Cross societies and to aid the latter in their various undertakings for the prevention of disease and for the relief of suffering.

THE TUBERCULOUS SOLDIER

Some of the very best results being obtained in the Reconstruction Hospitals are found in the tuberculosis sanatoria.

There are ten United States army hospitals devoted entirely to tuberculous patients, while in every hospital one or two wards are set aside for those cases waiting transfer to some special hospital. The total number of patients in these ten hospitals is today about seven thousand, and several thousand have already been discharged. Approximately one-fourth of the present number of patients have been

under treatment for periods of six months or longer.

Every tuberculous patient is treated and handled as an individual case. Outwardly the majority of these men look every inch the soldiers they have proved themselves to be. No outward sign gives any indication of their malady. No ache or pain or other symptom warns them of their trouble. Only the most scrupulous, thorough-going investigations of the diagnosticians discover the hidden enemy and put the men in a position to combat the disease successfully. This discovery of the disease in its early stages, with the prompt treatment instituted, accounts for the fact that almost all of these men recover.

During the early course of the disease—the febrile stage—the men are kept very quiet, in bed. Every means of diversion, including some bed occupations that do not interfere with this rest treatment, is afforded them. As the disease becomes quiescent and the fever disappears, they are allowed to spend most of the day in reclining chairs on the porch. During this period, certain occupations are introduced as a definite part of the cure. The doctor finally prescribes one or two hours' exercise a day, and this is gradually increased as improvement progresses. This allows the patient to enter one of the coveted courses in school or shop—coveted because, from the early days in bed, he has been stimulated to plan for his future and certain studies have already been given him along his chosen line. Constant supervision, by the doctor, of the general condition of each individual patient, the changes in his lungs, and his progress toward recovery is necessary. The kind and amount of work to which each individual is assigned is graded accordingly.

In no hospital is there greater opportunity for reconstruction work or a closer cooperation between the medical and educational officers than in these tuberculosis hospitals. Here the educational work has found one of its richest fields.

The uninterrupted period, in the sanatorium, of seven months is sufficient time in which to give a most thorough training in any one of several lines of work peculiarly adapted to this type of patient. Since the first part of this period requires only moderate physical effort, the commercial subjects are most excellently adapted to the needs of the tuberculous man. Hence, stenography, typewriting, bookkeeping, telegraphy, and similar occupations provide very prominent and popular courses. In these various lines, the men are able to gain a high degree of skill, and already the tuberculosis hospitals are sending considerable numbers of trained and apparently cured men out into excellent positions in the commercial world. Of course, the entrance of recovered tuberculous men into commercial pursuits will necessitate a constant medical supervision and inspection in order to guard against the possibility of relapse or new infection. The same precautions, however, are necessary for tuberculous civilians, no matter what kind of work the patients may enter or where they may be employed. Time alone will tell whether they are permanently cured and, for this reason, every discharged patient must be periodically examined and medically supervised in order to detect the earliest signs of recurrences and to check these at once by prompt precautions

For many patients, assignment to outside, open-air work seems highly desirable, especially when their former occupations were outside. Courses in farming, dairying, poultry raising, bee culture, gardening, and other outside activities are wonderfully adapted to the needs of such patients. The efforts along these lines and the results obtained at New Haven, Conn., Oteen, N. C., Denver, Colo., Otisville, N. Y., and other places, bear abundant testimony to the value of such opportunities as are afforded the tuberculous men in the Reconstruction Hospitals. (From *Carry On*, May, 1919.)

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Actual and the Ideal

[*Continued from June issue, page* 453.]

"HEINECKEN, Christian Henry, an extraordinary youth, born at Luebeck, in 1721. He spoke his maternal tongue fluently at ten months; at one year of age, he knew the principal events of the Pentateuch; in two months more, he was master of the entire histories of the Old and New Testaments; at two years and a half, he answered the principal questions in geography and in ancient and modern history. He spoke Latin and French, German and low German with great facility before the beginning of his fourth year—1725—during which he died." And his biographer closes with the melancholy announcement that "his constitution was so delicate that he was not weaned till a few months before his death." Any comment upon so phenomenal a radiance would seem impertinent. Possibly, to some of us, the most appalling feature of the lad's precocity lies in the "maternal tongue" having been spoken fluently at the age of ten months—for, it was German!

And, what shall we say of Giovanni Pico, Count of Mirandola, or of Oldfield, whose mind, it is said, "presented the finest display of human perfection"—although, to him, we must also attribute the flower of character as well as that of knowledge, for, "he was never known to be out of temper, and, though he suffered an illness of ten years, never repined or seemed impatient."

It would not do, of course, to generalize, from these and similar examples of astounding erudition. They are adduced here merely to indicate that the amplest knowledge may, still, be eclipsed by comparatively obscure competitors, and to bring home more forcibly the assertion, stoutly maintained after considerable experience and reflection, that the vital desideratum of education is, not so much to equip us for the battle of life and struggle for existence, as is so freely affirmed, as to shape in our hearts an exalted sense of honor and justice, and by every possible means to enshrine in our thoughts the ideal excellence of character without which learning is but an idle splendor. Nay, more than this, it is scarcely conceivable that the riches of knowledge should be aught save a burden to their possessor, unless united with traits of honor and loving kindness, and sympathies as delicate and tender as they are catholic and sincere.

It is necessary to consider seriously the tendency and scope of the question, and it brings us ultimately to the relation which the actual, visible, ponderable events of life bear to the unseen forces that shape society in its collective import and create and nurture in the individual the fairest offspring of truth, the *ideal*.

It is a perplexing period of the world's history. On the one hand, the powers of darkness—incarnate in the stupendous selfishness of men and nations—seem to gather strength with each new decade, and but too often the majesty of the law, at once the bulwark and burlesque of justice, is invoked, to clothe with final sanction that which conscience proclaims iniquitous. On the other hand, the signs of human progress toward ideal goodness are evidenced by a deeper communion of human interests than has marked any previous epoch, and by a worldwide principle of charity impossible to men before the Christian era.

"The world moves". Each century is better than its predecessor—stronger, freer, happier; and, if a cursory glance at the record of any given period indicates a seeming decline, a more careful survey of general results shows the lapse to be as the retrogression of planetary orbits—advancement even in seeming reversion. Barbarianism enough remains—we have only to read the daily chronicles of crime

to learn that. But, with all that is depressing in our present degree of civilization (for, we are civilized to only a certain degree), the great fact that, more than ever before, the welfare of the people receives legislative consideration persuades us that the power of the few is being broken and the "greatest happiness of the greatest number" is becoming the study and care of governmental polity.

> God said, I am tired of kings,
> I suffer them no more:
> Up to my ear, the morning brings
> The outrage of the poor.

This is not uttered in the narrow sense of self-sufficiency peculiar to our republican vantage; in truth, we are but trying an experiment in government, an experiment, too, that, so far, has proved only a splendid failure. Still, enough has been tested to show that masses of people must not be ignored in framing any equitable legislation, that, on the whole, a closer approximation to justice is attained through diffusion of power, and that the freedom thereby enjoyed offers a greater security and permanence than can be given by exclusive control by the state. It must also be confessed that, viewed in the largest economy, the political aspect of government is of subsidiary value as compared with moral and intellectual worth and that civic virtue that alone insures the greatness of a nation. This sign of the times is, however, most tangible—the certain, though tardy, tribute to the common weal—and, as such, illustrates the spirit of progress we are considering.

It may be conceded, then, with no little plausibility, that the sphere of human activity, the incentive to larger aspirations, and the gradual amelioration of the condition of mankind are assuming ampler proportions with each succeeding generation and that the horizon of higher susceptibility, bounded only by mortal limitation, is ever widening as we ascend to loftier, nobler planes of thought and feeling. Yet, as we have seen, this loftier flight has been, in part, stimulated by an unprecedented advance in the march of intellect. And here occurs in our progress an apparent, we must not say real, perturbation, like a loop in the course of Mars, which tends to set at naught our whole theory of the moral faculties, by the influence of which the equilibrium of mind and matter is rendered stable and abiding. For a while, we have lost sight of the end in the means, the passing phenomena of which absorb our attention. The soul, the immortal principle that is to the senses as light is to molecular affinity or as is the blue ether to the vapors that wrap a planet is forgotten in the feverish devotion to that which mere reason commends as the only oracle of truth.

One of America's greatest inventors, a pronounced materialist, not long ago, expressed, through the daily papers, his unbelief in the existence of a soul, asserting that the "soul", so called, is as material as the wax cylinder of a phonograph!

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The ideal has become merged in the visible. A cold materialism has supplanted that tender faith in the unseen, which hallowed the Academe and illumined the hills of Judea as they were the footstool of God. Everywhere we see the desolation wrought by adherence to unbelief in everything that conveys no distinct, appreciable knowledge to the outward senses.

Let us neither mistake the question nor magnify the importance of the issue involved. It were futile to disparage the onward sweep of modern thought or to detract from the beneficial results accruing to mankind from rational inquiry, the impetus of whose course can not be checked by idle criticism or failure to appreciate its motive and direction. What, however, shall we say when a prophet of the new school, eminent for intellectual grasp and acumen, formulates that school's philosophy in the following assertions: "Consciousness is a function of nervous matter. . . . We shall sooner or later arrive at a mechanical equivalent of consciousness, just as we have arrived at a mechanical equivalent of heat. . . . The progress of science has, in all ages, meant, and now more than ever means, the extension of the province of what we call matter and causation, and the concomitant, gradual banishment, from all regions of human thought, of what we call spirit and spontaneity."

Here, we have the motive of a stupendous creed, which, carried to its logical conclusion, would banish from our hearts and minds the very memory of the ideal and invest all that is most sacred to mortal insight with hard, mechanical interest. The

baneful influence of such teaching as this upon those incapable of discerning its origin and scope results in the fatalistic bias engendered by all iconoclasm.

Once shatter the imaginative faculty in us by the logic of materialism, and the real, albeit it may kindle a purely intellectual glow, assumes hollow, dreary proportions. Silence the delicate lyre that wakens in our dreams, that is touched to sweetest music when the heart responds to the presence of a child's hands, to the sight of a modest wild flower, to the voice of a woodbird or to a thrill of noble feeling whose only utterance is a tear—what, then, is there left in the Gorgon world of fact to replace the hold of these upon us?

Can the visible, classified details of creation satisfy the soul's thirst or the power of knowledge assuage the sorrows that empiricism is impotent to understand? Is the astronomer's bereavement less poignant because of his celestial love? Is the grief that visits the physicist mitigated by the might of his learning? How, then, will it fare with us if, abandoning our childlike faith in the unseen, we welcome exact knowledge as the only truth? We can not fear ethereal fancy, fairest of that fair band of sisters who compass us as mortal attributes. Shall the sweet prattle of our children be less precious to us, the perfume of the rose be less grateful, less mystical, less entrancing, the summer cloud less beautiful, the night-wind's cadence less tender and suggestive, because, forsooth, we have discovered the laws of their physical operation?

Let memory treasure the softening, though evanescent, impressions of beauty received from the survey of natural phenomena, rather than suffer the warmth of the sensibilities to be chilled by irreverent scrutiny. It is precisely in view of the fact that too close adherence to details is wont to dull the capacity for larger generalization that Thoreau said: "Nature will not bear to be looked at directly. She is like Medusa and turns the men of science to stone."

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The Ideal and the Appearance! They stand in juxtaposition and in contrast, like light and shadow in a landscape. So closely interwoven are their relations with each other, so blended their effects that it is unphilosophical to dissolve their union; and only as variant factors in the progress of thought can they be said to possess distinctive energies. Yet, they typify diverse methods of reasoning and diverse reactions upon the mind; and, in their cumulative results, in the extremes of optimism and pessimism (to employ phrases so often applied loosely), they imperceptibly exert diverse influences in shaping the conduct of mankind. One immeasurable superiority has the Ideal over the Apparent; namely, that, while imagination may include and transcend the sphere of fact, weaving therefrom the fabric of its dreams, the domain of exact knowledge may fail to cover the philosophy of intuition and fancy.

Many of the world's most noted scientists have been idealists, not least among whom stood those devout botanists of a century ago who approached nature with somewhat of the old Greek love for her—with that sympathetic affection that shines in Homer, is eloquent in Bion and Moschus, and appears in many passages in the trilogies, exquisite in fervor of simple, untutored delight. It stands forth in the awful veneration rendered imperishable by the psalms of David and fills with delicate perfume the rose-garden of Saadi. Listen to Linneus, a few selections from whose works will suffice to show the spirit he brought to his long labors. In his "Critica Botanica", he says:

"What do mortals desire in this world of change and vicissitude, the necessaries of life being obtained, save that after death some gentle memory of them shall remain, some recollection of nobleness that may survive corporeal decay? How many heroes, how many kings and emperors, how many strong and brave men have dared even the leaden fury of war that they might transmit to posterity name and fame! And, why should not the botanist so aspire, when he has dared not less than they? Whatever labor it involves, however tedious and perplexing becomes the study of botany, I know not what devotion inspires us in its pursuit, until our love of science merges in it all thought of self." Continuing, he exclaims:

"I deem it not superfluous, then, if name and memory should be endeared through countless labors and enduring patience on your part. Ah, how trivial seems the reward of all that toil, yet, how grateful to the recipient! For, although the knowl-

edge of this veritable tree of life which shall prolong your years, shall perish, the flowers shall remain and be revived and, with perennial gratitude, exhale the sweet recollection of your lives, yea, a memory more lasting than marble, more abiding than honor of kings and heroes. Riches, forsooth, may vanish, the stateliest edifices be brought to ruin, great states and flourishing kingdoms subverted; but, sooner shall nature herself be destroyed than shall decay the vegetable world or be forgotten he who to botany has brought renown!"

The language of Stigelius is full of lofty feeling, reflecting the pious spirit brought to natural study in his time. What dignity is there in the simple epitaph penned by his own hand: "Here I, Stigelius, lie, Who cares? Yet, God notes that which all the world ignores." In Thunberg's "Upsalian Dissertations", we find this glowing passage: "The true student of botany desires, not only to know, but, to feel. Even what is most useful blends with the perception of utility a passionate delight, and to him who earnestly pursues his task there are innumerable compensations for his toil. Not all things that we undertake look toward lucre. Exercise is dear to one engaged in the chase; the athlete finds his utmost exertion refreshing. Not always do we seek the useful; with even greater zest, do we pursue the amenities of life. In the care and study of plants, indeed, there is mingled so innocent a delight that, although the labor in no way offers a palpable reward, but, is sought for pure love of knowledge, this zeal should, surely, be counted among the most gentle and human of earthly desires".

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Dr. George M. Gould has well said, in an essay on "Vocation or Avocation": "Some seven hundred years ago, a non-Christian physician was also a prayerful, but, genuinely religious man. His heart and mind were fervent with love of his brother-men and with compassion for their physical woes. He was also most zealous in science, eager to unlearn his errors, watchful for new truth, earnest in wishing to add to the vast body of impersonal objective truth called Science—Science which will, finally, Science which only can heal the mighty patient, humanity, of its ills. Hallowed by the impassioned spirit of holy medicine, this noble physician thus invoked his God, our God, and the God of true Science: 'Thy Eternal Providence', said Maimonides, 'has appointed me to watch over the life and health of Thy Creatures. May the love of my art actuate me at all times; may neither avarice nor miserliness nor the thirst for glory or for a great reputation engage my mind; for, the enemies of truth and philanthrophy could easily deceive me and make me forgetful of my lofty aim of doing good to Thy children. May I never see in the patient anything else but a fellow creature in pain. Grant me strength, time, and opportunity always to correct what I have acquired, always to extend its domain; for, knowledge is immense and the spirit of man can extend infinitely to enrich itself daily with new requirements. Today, he can discover his errors of yesterday, and tomorrow he may obtain new light upon what he thinks himself sure of today. Oh, God, Thou hast appointed me to watch over the life and death of Thy creatures: here am I ready for my vocation'".

Sir Michael Foster said most aptly: "It is in the putting forth of the hypothesis, that the true man of science shows the creative power that makes him and the poets brothers. His must be a sensitive soul, ready to vibrate to nature's touches. Before the dull eye of the ordinary mind, facts pass one after the other in long procession, but, pass without effect, awakening nothing: in the eye of the man of genius, be he poet or man of science, the same facts light up in illumination, in the one, that of beauty, in the other, that of truth; each possesses a responsive imagination."

Helmholtz was an idealist of the purest type. His was a poetic nature, apt in verification and in music, yet with an intellect so searching that he was not entirely satisfied by esthetic feeling and fantasy, but, sought also to understand them.

[*To be continued.*]

Among the Books

ROSE: "PHYSICAL DIAGNOSIS"

Physical Diagnosis. By W. D. Rose, M. D. Two Hundred and Ninety-Four illustrations. St. Louis: C. V. Mosby Company. 1917. Price $4.00.

While it can not be said that there is a dearth of textbooks on the subject covered in the volume before us, this recent contribution to the literature on physical diagnosis recommends itself by the clear and simple treatment of the subject. There is no undue space devoted to theory, the various methods of physical diagnosis being described and taught, clinically, as it were, with reference to numerous excellent illustrations, and in such a manner that the methods outlined can easily be practiced on the living subject. We have enjoyed reading Doctor Rose's book and can recommend it cordially.

CROSSEN: "DISEASES OF WOMEN"

Diseases of Women. By Harry Sturgeon Crossen, M. D., F. A. C. S. Fourth Edition, Revised and enlarged. With 800 Illustrations. St. Louis: C. V. Mosby Company. 1917. Price $7.50.

It is seldom the Reviewer's privilege to be able truthfully to give as unstinted praise as this work deserves, whether we regard it as a treatise on an important subject, or as an elegant specimen of book making. The type has been happily selected, making an open and attractive page, while the use of bold-faced type for section heads and for important phrases, facilitates the finding of desired information. The fourth edition has several improvements over previous ones, notably a number of new illustrations. Perhaps the most important feature of the present volume is a chapter on the ductless glands and their relation to gynecology. This is most interesting and timely, in view of the increasing attention that the profession is giving to this subject. It is gratifying, too, to observe that the author has not allowed the importance of surgical gynecology to overshadow the less spectacular but equally important field of non-operative gynecology, as some of our recent textbooks have done. For every competent surgeon there are a score of family physicians who need just the kind of help to be found in this work. The present Reviewer cannot but regret that such a volume was not accessible a generation ago when we had to make our perplexing way over the then uncharted seas of gynecology.

McJUNKIN: "CLINICAL MICROSCOPY AND CHEMISTRY"

Clinical Microscopy and Chemistry. By F. A. McJunkin, M. A., M. D. Illustrated. Philadelphia and London: W. B. Saunders Company. 1919. Price $3.50.

In this volume, the author attempts to bring to the attention of the reader the clinical application of chemical and biologic methods. This is a point that has received too little consideration in textbooks or manuals dealing with laboratory methods. Usually, the procedures for making certain tests are outlined and described, but the student or practitioner is left without assistance when he attempts to draw inferences from the result of his investigations. For instance, in urinalysis; supposing the acidity is high, the quantity of urea low, while there is present indican, and also skatol. There may, or may not, be evidences of oxaluria. Now, what is the answer? The student justly expects from a textbook on laboratory technic that this answer should be supplied; that is to say, that the explanation be afforded for certain variations from the normal in the result of his urinalysis, or of his blood examination, or of the investigation of serous fluids, and so on.

While Doctor McJunkin has in his present treatise discussed many of the points referred to by the Reviewer, and while in this respect his book possesses many advan-

tages over other laboratory guides, we would like to see the doctor carry the idea still further. It ought to be possible in a "clinical" microscopy and chemistry to discuss the laboratory findings with distinct reference to the clinical conditions that are suggested by them. Laboratory technic is all right, but it is only a means to the end. It is never the end itself, except to the man who specializes in laboratory technic exclusively. The clinician wants to know why, and where, certain irregularities occur. Moreover, if he can be given a hint as to how to remedy them, it would be so much the better.

Despite these considerations, that may, or may not, be accepted as criticism of Doctor McJunkin's textbook, this, nevertheless, may be recommended cordially for the subject matter which it actually contains. We hope that, in a later edition, the author may decide to extend his investigations along the lines suggested.

FERNALD: "EXPRESSIVE ENGLISH"

Expressive English. By James C. Fernald, L. H. D., Associate Editor of the Standard Dictionary. New York: The Funk and Wagnalls Company. 1918. Price $1.60.

This work should be in the hands of every lover of good English. The author has a clear and expressive style, a refreshing breadth of view, and a keen sense of humor. Grammarians often have been prone to dogmatize—to lay down *ex-cathedra* rules for the government of speakers and writers, and sometimes these rules were not founded on reason, nor were they in accord with the English of the great classical writers. The author unsparingly points out the futility of some of these rules, and quotes liberally from the best English literature, to prove the soundness of his own contentions.

A lover of good English himself, Doctor Fernald discusses his subject so attractively that the reader can not escape the contagion of the author's enthusiasm. One reviewer voices his opinion about the book, rather tritely, maybe, yet, sincerely by characterizing it as being "as fascinating as a novel."

The atmosphere of the work is one of freedom. The author very properly maintains that no one can use the English language to the best advantage when he is hampered by rules that have no better excuse for existence than the *ipse dixit* of some self-appointed dictator. He holds that the first requisite of language is, that it should be expressive; for, if it is not so clear that the reader can grasp the meaning at once, the author has failed in the very object for which language exists. Of course, other qualities are desirable, such as strength, harmony, picturesqueness, and, in regard to all these features of good English, the student will find much to assist him in acquiring a proper style, and, not, by means of arbitrary rules, but, by abundant quotations from classical authors that illustrate each point.

LOEB: "EAR, NOSE AND THROAT"

Military Surgery of the Ear, Nose and Throat. By Hanau W. Loeb, M. D. Philadelphia and New York: Lea & Febiger. 1918. Price $1.25.

This little volume is No. 8 of the Medical War Manuals, the publication of which was authorized by the Secretary of War and under the supervision of the Surgeon-General and the Council of National Defense. It constitutes a review of the surgical literature of the great war in so far as it pertains to the ear, nose and throat. In order to make it of the greatest service possible, the author has divided each chapter into two portions, the first containing a more or less dogmatic expression of his own opinion gained from previous personal experience and from the study of the war literature; while the second, which is headed "Comment", consists of a review of the literature in detail.

The literary references that have been considered are very ample, thirty-two pages of text having been devoted to their enumeration in the final chapter. The little book contains an enormous amount of condensed information.

"PRACTICAL MEDICINE SERIES"

The first volume of the *Practical Medicine Series* for 1919 is devoted to the last year's literature and progress in general medicine. It forms a splendid volume of 607 pages of text, covering most of the "internal" diseases that practitioners are called upon to deal with.

The Practical Medicine Series is issued in eight volumes per annum, covering the

entire field of medicine and surgery and of specialties. Each volume is complete on the subject of which it treats for the year prior to its publication. The subscription for the series of eight volumes is $10.00, while the price of the individual volumes ranges from $1.50 to $2.50. The series is gotten out by The Year Book Publishers, 304 South Dearborn St., Chicago, and forms a remarkably useful means for keeping abreast of progress.

"PROGRESSIVE MEDICINE"

In the current volume (June 1) of *Progressive Medicine*, a special chapter is devoted to the subject of hernia, and this is followed by a chapter on surgery of the abdomen, exclusive of hernia. Of particular interest to the general practitioner, is, the review of the literature on the disorders of nutrition and metabolism, diseases of the endocrine glands, and diseases of the blood and spleen.

In the fourth number (Dec. 1, 1918) of last year's volume, which has not yet been acknowledged, there is of great value to the general practioners a "practical therapeutic referendum" prepared by Dr. H. R. M. Landis. This discussion of therapeutics occupies ninety pages of text and contains a great amount of useful information concerning all sorts of remedial agents.

Progressive Medecine, which appears quarterly, being edited by Professor Hare and Doctor Appleman, is published by Lea & Febiger, Philadelphia, Pa., at the price of $6.00 per annum.

"SQUIBB'S MATERIA MEDICA"

Squibb's Materia Medica, 1919 Edition. Published for The Physician and the Surgeon. By the Medical Department E. R. Squibb and Sons. New York.

This is a complete alphabetical list of the Squibb's products, including all the articles of the United States Pharmacopeia (IXth Revision) and of the National Formulary (IVth, 1916, edition) together with the nonofficial chemicals, pharmaceuticals and newer remedies in general use; setting forth their origin, Latin and English titles, synonyms, physical and chemical characteristics, incompatibilities, antidotes, therapeutic indications, dose. Also, a comprehensive descriptive list of tablets for internal and for hypodermic use; of biological products, and of reagents, including test solutions, volumetric solutions and indicators.

Squibb's Materia Medica contains an interesting historical introduction, referring to the one hundredth anniversary of the birth of Doctor Squibb, the founder of the house, and to the sixtieth anniversary of the founding of this firm. It is astonishing to realize how great an influence Doctor Squibb has exercised upon the preparation of pure drugs in the past, and it is a matter of congratulation that from the beginning the designation "Squibb" after the name of a drug was unhesitatingly taken as a guarantee of purity.

The little book itself is a useful reference volume for rapid consultation and will be much appreciated.

MORROW: "DIAGNOSTIC AND THERAPEUTIC TECHNIC"

Diagnostic and Therapeutic Technic. A Manual of Practical Procedures Employed in Diagnosis and Treatment. By Albert S. Morrow, A. B., M. D. With 860 Illustrations, Mostly Original. Second Edition, Thoroughly Revised. Philadelphia and London: W. B. Saunders Company. 1915. Price $5.00.

The process of establishing a diagnosis, of almost any condition of ill health for which the physician is consulted, has long since extended far beyond the feeling of the pulse and inspection of the tongue. Not only is a complete physical examination required but additional measures often are necessary in order to supplement the findings secured by means of stethoscope and percussion hammer. Many of these diagnostic methods, whether they be the removal and examination of gastric contents, or of fluid collected in the pleural cavity or in the peritoneal cavity, or whether it is a question of investigating the actual condition and functioning of any of the special organs of the body, necessitate certain procedures that must be learned with care in order to be successful. Moreover, most textbooks on diagnosis and on the practice of medicine are forced through their limitations of space to omit the detailed consideration of many diagnostic procedures

There are also methods of treatment that require special dexterity and the observance of a definite and careful technic. Here again it often is impossible, or at least

very tedious, to secure the necessary guidance in the ordinary textbook.

In the volume before us, there is collected a large number of procedures employed in diagnosis. The author has succeeded so well in the task that he set himself, that his title "Diagnostic and Therapeutic Technic" may be understood in the widest sense possible. Doctor Morrow's textbook is unusual in the wide scope of subjects that are treated and in the splendid manner in which the teachings are given. A remarkably free use has been made of illustrations, and the general practitioner, especially he in country- or small town practice, will particularly be grateful to the author for this very efficient guide.

MACFADDEN: "MANHOOD AND MARRIAGE"

Manhood and Marriage. By Bernarr MacFadden. New York: Physical Culture Publishing Company. Price $2.00.

Since "the wages of sin is death", Mr. MacFadden's book endeavors to raise up the fallen, to shed the light of knowledge where only the darkness of the vilest prudery reigns, to place health of body and purity of mind within the reach of every human soul now struggling in the mire of weakness, disease, mental and moral filth. And, to men who have been tortured almost beyond mortal endurance as the result of ignorance and sin at the time welcomed unknowingly, this book is reverently dedicated.

In discussing the relations between boys and girls, young men and young women, and grown men and women, the author, while outspoken, to a degree, nevertheless employs a purity of language and thought that is stimulating. He considers it absolutely essential that the subjects of manhood and womanhood, of virility and of sex should be regarded with pure minds rather than from the militant morality and foul minded viewpoint of the prude. He claims that the impure mental attitude toward sex and sex problems, with the prudery and ignorance that have grown out of it, have been responsible for more human suffering weakness and tragedy than all the wars of the world. As a matter of fact, there can be nothing inherently evil in the problems of sex because they are an integral part of healthy and wholesome manhood and womanhood.

Mr. MacFadden, who is an enthusiastic advocate of physical and mental vitality, and who, undoubtedly, has done much in promoting and preaching clean living and thinking, takes up, in the present volume, many questions that confront young men and older men, and that are of interest also to women. Seeing in a happy marriage the culmination of a full, natural and useful life, he very properly discusses the marriage question in great detail.

Paradoxical as it may seem, Mr. MacFadden is firm in his conviction that marriage is truly a divine institution, but, yet, he sanctions divorce—under certain conditions. He considers it wrong that men and women should be forced to live together when love has turned to hate and disgust, and believes that such a compulsory relationship would be destructive to character. "Marriage is made by love and is unmade through the disappearance of love, regardless of legal or theological enactments. This law is definite and final."

In regard to the marriage relations, Mr. MacFadden's views are sound, for the reason that they are eminently fair to both husband and wife. Indeed, he is definitely and positively opposed to the customs and views that have come down through the ages, are still all too evident, and according to which the wife is considered merely as a chattel, subject to her husband's whims and passions. Mr. MacFadden is very insistent upon it that, in the marriage relation, the wife's rights are equal to those of the husband and, indeed that these relations should be regulated by her.

There is much good advice, much sensible philosophy, and much wholesome enthusiasm and optimism in this book which physicians should read and take to heart, after which they might usefully give it to their young men and to older men as well. There is a vigor and wholesomeness of feeling actuating the writing of this book which makes the advice alive and useful and stimulating. The Reviewer has read it through with much appreciation and cordially recommends it.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6433.—"Nuclein in Combination with Bacterin-Therapy." G. H. W., Michigan, asks: "Is there any objection to associating nuclein-solution with an injection of bacterins. Are they incompatible?"

It is a well-known fact that the injection of any foreign protein, bacterin, or other, in most patients elicits, as one of the initial responses, a leukocytosis; the leukocytes usually being increased, from 8 thousand to 10 thousand, which is normal, up to as high as 25 thousand. The increase is principally in the number of polynuclears, although in some instances the lymphocytes are particularly increased in number.

In some individuals, for reasons as yet unknown to us, this leuckocytic response does not occur, and, further, if our theory about the use of bacterins is correct, they increase the opsonins of the serum. The opsonins, as Doctor Wright holds, prepare the bacteria for phagocytosis; therefore, injections of bacterins, if the patient exhibits a normal response, will increase the opsonic index of the serum and also increase the number of the leukocytes.

This leukocytic response to a bacterin-injection, however, is a temporary, or fleeting, condition, and the opsonic increase does not occur until after the leukocytosis, as induced by the bacterin injection, has markedly diminished or disappeared.

Reasoning, therefore, from what practical knowledge we have and our present theory about the action of bacterins, it would be rational to employ some agent calculated to increase the number of leukocytes in the circulating blood. For this purpose we have at present nothing the equal of nuclein, so far as we know.

If we simply inject bacterins we find, after seventy-two or more hours, a rise in the opsonins that prepare the bacteria for phagocytosis. If, in addition, we now give nuclein hypodermically, we increase the number of phagocytes, and, consequently, have added the other essential factor.

We have repeatedly found, especially in chronic staphylococcus-infections, that bacterins alone were of little value. We recall distinctly at present the case of a physician who had a chronic furunculosis, lasting some years, in which an autogenous bacterin failed to produce results, notwithstanding he took enormous doses—50 billion organisms—at one time, without any reaction whatsoever resulting.

Regardless of the fact that this patient had several large-sized furuncles, the blood examinations showed that his leukocyte-count was only 10 thousand—practically normal. There was no evidence of diabetes, tuberculosis or other systemic disease to account for his lack of response. There was no evidence of general disease that would account for his failure to acquire immunity to staphylococcic infections, even after bacterins had been administered in very large doses.

An opsonic-index determination evidenced that the opsonins in his blood had been very markedly increased. However, as the leukocyte-count was low, recovery did not take place. This was explained to him over the phone and, as he had had this trouble for several years, he immediately decided, that, if a little nuclein was good, a larger amount would be better, and, having on hand some of the Lundvall solution, that he was using in a case of dementia præcox, he took one mil of this (a 10-percent solution of nuclein) hypodermically. This concentration of nuclein is very painful when injected; hence, it caused a burning like a hot iron for about three hours. There followed a severe chill and a rise of

temperature of 4 degrees, this reaction lasting about forty-eight hours. However, the furunculosis immediately showed signs of retrogression, and had completely disappeared on the eighth day. Furthermore, notwithstanding the fact that previously, whenever he came in contact with a purulent case, either in the hospital or in private practice, there would at once form one or more furuncles, he now, within the past seventeen months, contracted not a single infection and has returned to the active practice of surgery, which, previous to this experience with the nuclein, he had virtually abandoned.

Theoretically, we do not believe that it would be good policy to combine nuclein with a bacterin in the same dose, particularly when it is a staphylococcus-bacterin. There may be no practical difficulties; but, this can be determined only by experiment.

Nuclein, owing to its high positive chemotactic action, which is also possessed by dead staphylococci, might, when injected, result in the formation of a sterile abscess at the site of inoculation. This, also, can be determined only by experiment.

A more rational procedure, to our mind, would be, the hypodermic administration of nuclein from forty-eight to seventy-two hours after giving the dose of bacterin, because it is at this time that the opsonins are in the ascendancy, and it is well known that nuclein produces a leukocytic rise in a very few hours. Under this method of dosage, the leukocytes would be increased in the blood-stream at the very time when they would be needed and when the greatest amount of opsonins would be available.

There are also some theoretical as well as practical grounds for believing that the leukocytes have something to do with the production of the opsonins; in fact, Metchnikoff and his followers assert that the opsonins are derived directly from the leukocytes. If this be true, it is one more argument in favor of the use of nuclein.

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Query 6434.—"The Flavines and Malachite-Green." H. H. S., New Jersey, requests information regarding the use of the flavines and malachite-green.

The use of malachite-green and the flavines is fully covered in the "Handbook of Antiseptics" by Dakin and Dunham.

As you may be aware, both malachite-green and brilliant-green have been in use for some time. In combination with mercuric chloride, malachite-green has given fair results, but, otherwise these dyestuffs have not been found very effective. The acridine dyes—acriflavine, and proflavine—were introduced a few years ago. These yellow dyes have been found much more efficient as bactericides than the malachite-green. Acriflavine has given the best results; unfortunately though, its action is very slow, a 1 : 1000 solution requiring twenty-four hours to effect complete sterilization.

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Query 6435.—"Obscure Case of Loss of Appetite and Energy." L. P. H., Vermont, has under his care a girl, nineteen years of age, who, two or three years ago, began to feel sick, the first obvious symptom being an enlarged thyroid gland. She is naturally stout. Having her urine examined, 5 percent of albumin was reported being present. Under an appropriate diet and Basham's mixture, this disappeared after a time. Later, our correspondent advised her to go to the hospital, as she had lost her appetite entirely. Her friends, however, would not consent to this, so, he gave up the case. Another doctor took charge, and, by forced feeding, got her to eat certain kinds of food. At last, he became discouraged and the girl returned to L. P. H., her original medical attendant. The latter is now employing vibration and violet light, and also is giving her tonics, to increase the appetite, together with compound cathartic pills. The girl is extremely constipated, or, rather, has no action of the bowel, which appears to be "paralyzed". She eats only bread and butter and drinks coffee. The thyroid gland still is somewhat enlarged. "She seems to be heavy enough, but, has not much strength."

You do not say anything about the blood pressure or the pulse rate, neither do you give us any idea about the character of her skin. In fact, from the picture presented, it is a question in our mind as to whether thyroidism really obtains or, at least, whether that is the basal pathological condition.

We should have the urine and blood of the girl examined at somewhat frequent intervals.

We can not think that it is desirable to administer those cathartic pills, neither should we limit the diet to bread, butter, and coffee; in fact, she should not touch

coffee. Let her take plenty of vegetables, fresh fruits, milk, and Vichy water or buttermilk; also try whether you can not secure a more satisfactory intestinal condition by the use of liquid paraffin, together with, perhaps, some such combination as berberine hydrochloride, gr. 1-6; juglandoid, gr. 1-6; physostigmine salicylate, gr. 1-500; strychnine sulphate, gr. 1-4; oleoresin of capsicum, gr. 1-64; taken after each meal for a week or so; and a tablet containing podophyllin, leptandroid, irisoid, with nux vomica and capsicum, at 8 and 9 o'clock p. m., every second or third night. The next morning, the patient should receive a dose of sulphate of either magnesium or sodium, the mineral oil to be omitted on these days.

Insist upon frequent salt-water spongebaths and have the patient spend as much time as possible in the open air, and instruct her in deep-breathing.

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QUERY 6436.—"Anosmia; Post-Influenzal Otalgia." M. C. B., Nebraska, presents the following:

"(1) Man, twenty-two years old; has had nasal catarrh for several years, but not a severe form. His only trouble now is that he cannot smell anything, no matter how strong or disagreeable the odor may be. Patient is very anxious for relief.

"(2) How should one treat earache following influenza? I have used heat. Another doctor here uses ice or cold applications."

In the case of anosmia you describe, all treatment may prove unavailing. As you are aware, for the normal perception of odors, three facts are essential—first: the olfactory terminals and their nerve tracts must be normal; second: it must be possible for odoriferous particles to come in contact with the olfactory region of the nose (olfactory bulb, olfactory nerves, etc.); and third: the mucous membrane it self must be moist and in a healthy condition.

It is evident that interference with the sense of smell may be (a) respiratory, or (b) of an essential character. As one side of the nose is sufficient for the perception of odors, anosmia is seldom complained of unless the disease condition is bilateral.

By examination alone can we determine definitely whether the causative condition is respiratory or essential. There may be a misdirection of the air-current, causing the air to be drawn along the floor of the nose instead of being sniffed up into the olfactory region. Or such access may be prevented by the presence of new-growths, rhinitis, suppuration of the parts, or obstruction or stenosis of the choanae.

There may be direct injury to the olfactory mucous membrane and nerve-endings, caused by rhinitis, atrophic rhinitis (probably in this case), ozena, or the prolonged use of socalled catarrh lotions containing carbolic acid, zinc or other astringents.

Essential anosmia is not particularly uncommon following influenza. It must then be regarded as a neuritis. The condition has also been found due to the excessive use of tobacco or inhalation of tobacco-dust, as in cigar-making, and also to malaria.

The prognosis is reasonably good if the anosmia is due to conditions mentioned in the respiratory group, and the sense of smell has been restored after a loss of forty years, when depending only upon nasal obstruction. Where there is damage to the olfactory nerves, or material injury to the olfactory mucous membrane, or prolonged rhinitis, ozena, etc., the outlook is not promising. It may be stated that the prognosis is worse the less evidence there is of a definite lesion to explain the loss of smell.

It is essential in all such cases that the patient be examined by a competent rhinologist.

Under certain circumstances, very bland alkaline douches may be given with advantage, and the use of the following snuff is to be recommended:

Strychnine sulphate	0.10
Pulv. iridis	0.50
Sugar of milk pulv	10.00

The arsenates of quinine and strychnine may be given internally for some time.

However, it is unwise to institute any medicinal treatment or make any promises to the patient until the exact condition of the parts has been definitely ascertained.

(2) Otalgia, following influenza, is apt to prove a very troublesome condition. Heat, however, is decidedly more useful in the majority of cases than cold, and the writer has derived most satisfactory results by instilling a few drops of atropine solution and, a few minutes later, applying the core of a baked or boiled onion,

as hot as possible, to the ear, covering with absorbent cotton and bandage.

In all these cases, sodium salicylate should be given internally and thorough elimination maintained. Not infrequently the intense pain may be relieved by the administration of two or three one-grain doses of phenacetin, i. e., one grain every thirty or sixty minutes, with a little hot water. Sodium or strontium salicylate may be given in 5-grain doses, three times daily for a few days.

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Query 6437.—"Phenol in the Treatment of Hemorrhoids." I. P. G., New Mexico, asks: "What information can you give me on the use of carbolic acid in the treatment of protruding piles?"

Carbolic acid has been used very extensively in the treatment of internal hemorrhoids, while, at the same time, its employment has been as vigorously condemned. Local applications of phenol are not desirable, although very dilute solutions or mild ointments serve to allay pruritus.

One of the most-widely used injection-fluids, especially for the eradication of single tumors, consists of: tannic acid, grs. 20; phenol, drs. 2; glycerin, drs. 2; water, drs. 4. This makes a 25-percent solution of phenol, which, plus the astringent tannin, quickly coagulates the blood when thrown into the pile. Indeed, it is so prompt in its solidification of the hemorrhoid that the puncture where the needle entered often remains open.

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Query 6438.—"Cephalalgia of Obscure Origin." W. E. D., Iowa, asks assistance in the case of a man, who is "in good health, excepting for attacks of a terrible headache, which occurs, sometimes, every few days or may omit for a month or two or even three months." W. E. D. writes:

"I have tried nearly everything to relieve these attacks, but, nothing gives relief except a hypodermic of morphine and atropine. The pain is so severe the man has to go to bed. However, ¼ grain of morphine with 1-100 grain of atropine always ensures relief. He goes to sleep and the headache will disappear. His father used to have these same kind of attacks.

"The patient is now fifty years old and has suffered this since he was fifteen years of age. He is a man of good habits; smokes cigars, but, not to excess. His bowels are regular. I have examined his urine several times when he had such an attack and almost always found it of high acidity; however, alkalis do not give relief. His temperature is normal, the pulse a little slower than normal. I have known him for now fifteen years. Have thought that it might be of luetic nature; however, he denies anything of the kind."

Considering the report on the urine and the age of your patient, we certainly should definitely ascertain the man's blood pressure and should also place him upon a low-protein diet. As you will observe, from the chart, the urea output is insufficient; indican and skatol are present in moderate amounts, together with colon-bacilli, staphylococci, and a few streptococci; there also are present calcium-oxalate crystals in moderate amount, a few large hyaline casts and cylindroids, some renal cells, and pus.

We are inclined to believe that, under thorough elimination and proper dieting, most of the symptoms will disappear; still, in a case of this kind, it is essential that frequent urinary tests be made. Do not forget, either, the desirability of administering an appropriate vaccine. A Wassermann test might prove informative. What is the condition of this man's prostate?

On general principles, we should advise the administration, at night, of blue mass and soda, gr. 1-2; podophyllin, gr. 1-6; bilein, gr. 1-12; repeated every half hour for four doses, followed by magnesium sulphate or sodium phosphate the next morning. Midway between meals, we should give arbutin, with hexamethylenamine and acid sodium phosphate; after eating, some such combination as this: pancreatin, gr. 1-2; papain, gr. 1-2; diastase, gr. 1-2; bilein, gr. 1-32; strychnine sulphate, gr. 1-128; ginger, gr. 1-4; vegetable charcoal, grs. 2 1-2; sodium bicarbonate, gr. 1.

Coffee and tea should be interdicted, and the patient ordered to drink three pints of water during the day. The skin should be kept thoroughly active. It also would be an excellent plan to wash out the colon once or twice a week with saline solution at body-temperature. If possible, have the patient relinquish smoking.

It is unnecessary, we are sure, to call your attention to the desirability of having this man's eyes examined by a competent oculist. We certainly should not continue giving morphine.

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About Bloodmakers

THERE has been much discussion of the question as to whether any mineral, especially, iron, can be absorbed directly from the alimentary tract and become part of the blood, and thus of the body-tissues. Because the blood-corpuscles contain a considerable percentage of iron, it was, long ago, assumed by therapeutists that, in anemia (more correctly, spanemia), the logical thing to do would be to administer iron. However, in recent years, some members of the profession, and especially those inclined to therapeutic nihilism, have ridiculed this idea, insisting that the ingestion of inorganic iron can not possibly increase the iron in the red corpuscles, for the well-known reason that mineral substances first must be transformed, by vegetable chemistry, into organic compounds, and which only then can be appropriated by the animal-organism. Thus, for instance, the iron in spinach can be assimilated by the animal-body, while that in tincture of ferric chloride or in Blaud's pills can not.

No one denies that, as a general thing, mineral constituents of animal-tissues have arrived there by the vegetable route, but, this is not saying that all of them have come that way. For, it has never been proven that it is impossible for minerals to be absorbed or assimilated; it has merely been reasoned out by analogy. But, even if ever it should be demonstrated beyond a doubt that iron or an inorganic salt of it, when taken into the stomach, never reaches the blood, that still would fail to prove the therapeutic nihilist's case. For, it is quite conceivable, and, indeed, by some believed, that the presence of inorganic iron in the digestice tract may exercise some special influence upon the assimilation of food, without itself being assimilated. Thus, the ingestion of inorganic iron-compounds would be justified.

In deciding a question of this nature, the one whose observations and opinion ought to weigh most is the experienced therapeutist—the one that prescribes drugs, because his experience has shown him that he can get results with them. With him must rest the final decision. We owe much to the laboratory-investigator and have no desire to deny the debt. Yet, without

belittling him, we can say that he does not know everything.

There are three mineral substances that have acquired a reputation as bloodmakers, namely, iron, arsenic, and manganese. In the anemia resulting from the ravages of an acute disease, iron is a favorite; in pernicious anemia, arsenic is found extremely useful; while in the anemia associated with amenorrhea, manganese has proven especially serviceable. Of course, the employment of these three elements is not limited to the special pathologic conditions; for, as we know, they are prescribed more or less in every form of spanemia.

Probably every doctor in general practice has seen cases like the following: A child has had scarlet-fever or some other acute disease. Convalescence is established, but, is imperfect and unsatisfactory. The patient is not regaining his normal condition as rapidly as he should. He is pale, anemic, without appetite. The doctor orders tincture of iron, 5 minims three times a day, and, perhaps, in order to make it less disagreeable, combines it with an equal volume of dilute phosphoric acid, or of spirit of nitrous ether, in a vehicle of simple syrup. In a day or two, the patient's appetite begins to improve and soon becomes fairly ravenous. The blood-count rapidly rises, and, in a short time, the child is as well as ever. The skeptic declares that this was merely a coincidence; however, when the family-physician has been observing just such so-called coincidences for a score of years, he can afford to smile at the cocksure dogmatist who "knows" that it is "impossible" for mineral iron to enter the blood.

There still remains much that we do not know as to *how* certain remedies produce their results; yet, when prolonged experience shows that they do produce them, we are quite justified in continuing using them, while we wait with patience for more knowledge about their mode of action.

OPIUM MUST NOT BE PROHIBITED

Dr. John Dill Robertson, Chicago's Commissioner of Health, has reported, in the daily papers, the result of a six months' experiment conducted in the city's Tuberculosis Sanatorium, in doing without the use of opium or its derivatives; and he draws the conclusion that the use of opiates is, without exception, unnecessary. He urges that the medical profession ought to join voluntarily in a movement designed to prohibit the importation and sale of all the habit-forming drugs. In other words, although the chief object of medical science is, to alleviate human suffering, it is proposed to deprive ourselves of our most reliable and efficient instrument to this end.

Because a lot of criminals and degenerates are abusing the use of morphine and cocaine, only to degrade themselves still further, the decent portion of humanity are to be forced to deny themselves the relief of pain caused by accident or disease, no matter how agonizing. Incidentally, the Doctor asserts that there are 50,000 drug-addicts in Chicago. This is in line with the assertion lately made by the liquor-interest propagandists, that there are in the United States a million drug-addicts, and that prohibition would increase their number tenfold. Somehow, these assertions bring to mind the famous prediction, some two years ago, of a certain silver-tongued orator, that, if this country were threatened by a foreign foe, a million men would spring to arms between sunrise and sunset.

On a subject of such importance, it would seem fitting that extravagant assertions should be abandoned for uncontrovertible facts. Dr. McNamara reports that, in the Cook County jail, in the six years from 1913 to 1919, out of 57,054 prisoners, only 755 were habitual drug-users, that is, 1 in 75. It is a fact that the percentage of drug-users is much higher among criminals than among the community at large.

On this aspect of the case, the annual report of Surgeon-General Gorgas throws an interesting light. Out of 894,000 soldiers examined by the army-surgeons, only 403 were rejected as drug-users, that is, 1 in 2218. It seems fair to assume that the proposition of addicts in the community at large would be somewhere near the same proportion, since these soldiers came from every part of the country. Taking our population at 100,000,000, that would give a little more than 45,000 drug users in the United States. Then, if the population of Chicago is, in round numbers, 3,000,000, the same proportion would give the city only 1,350 addicts.

It is well enough to be philanthropic and self-sacrificing, for the sake of the un-

fortunate, but, most of us will decline to go to the extent of denying relief to legitimate and unavoidable suffering for the sake of coddling the criminal classes.

Even if it were possible to make consumptives endure their sufferings without the relief afforded by morphine or heroin, that does not prove it either wise or necessary to deny them this relief. Doctor Robertson admits that during the first three days of the experiment the sanatorium was almost a bedlam. No wonder! He asserts that now opiates are not missed there. It would be interesting, indeed, to know just what the patients say about it. It is true that many a consumptive in the world's history has gone to his grave without the relief that morphine might have afforded him; but, was he any better off for having endured that suffering? Does not humanity demand that we make that dreadful period of hopeless misery as easy as possible?

Besides, there are other forms of pain that demand relief far more urgently than do the pangs of tuberculosis. What about the agonies of gallstone colic or renal colic or of the mangled and crushed bodies of the railway-accident or of the battlefield? Indeed, it seems almost unbelievable that any intelligent person would seriously advocate a law that would render impossible the relieving of such suffering.

What a desolate place would be a world without a flower! It would be a face without a smile, a feast without a welcome. Are not flowers the stars of the earth, and are not our stars the flowers of heaven?
—Mrs. Balfour.

LEAGUE OF RED CROSS SOCIETIES

National Red Cross Headquarters has announced the formation, in Paris, of the League of Red Cross Societies, the purpose of which is, to unify the Red Cross organizations of the world in a systematic effort to anticipate, diminish, and relieve misery produced by disease and disaster.

The objects of the League are: (1) To encourage and promote in every country a duly authorized voluntary National Red Cross organization, having for their purpose the improvement of health, prevention of disease, and mitigation of suffering throughout the world, and, to secure the cooperation of such organizations for these purposes. (2) To promote the welfare of mankind, by furnishing a medium for bringing within reach of all peoples the benefits to be derived from present known facts, and new contributions to science, and medical knowledge and their application. (3) To furnish a medium for coordinating relief-work in case of great national or international disasters.

The control of the League will be by a general council, composed of representatives of all members of Red Cross societies meeting at designated periods. A governing board of fifteen members will be chosen by the general council to direct the affairs of the League in the intervals between such meetings. Henry P. Davison, of New York, formerly chairman of the War Council of the American Red Cross, is chairman of the League's first Board of Governors. Other members of the board chosen thus far are: Sir Arthur Stanley, of the British Red Cross; Comte Kergorlay, of the French Red Cross; Count Frascara, of the Italian Red Cross; and Professor Ninagawa, of the Japanese Red Cross. Geneva will be the headquarters of the League and the world health-program shaped at Cannes will be further developed.

While it is expected that the League of the Red Cross will establish intimate relations with the League of Nations, it should be understood that the Red Cross League, being a purely voluntary, nonpolitical, nonsectarian, nongovernmental organization, has no statutory connection with the League of Nations or with any government.

Mr. Davison, commenting on the Red Cross League, said:

"The Red Cross Societies of the United States, Great Britain, France, Italy, and Japan have, for several months, worked incessantly through their representatives, to devise an agency that would adequately cope with the world-problems of disease and disaster. We hope it will be universal in membership. From the outset, it was clear to us all that there was no institution in the world so well adapted for this task as the Red Cross, because of the peculiar hold that it has upon the hearts of all peoples, irrespective of difference of face and religion; because of the amazing development of its powers in the recent war; because of the anxiety of its membership not to lose the opportunity for service when war-service no longer was needed. It is generally believed that the health-problems of the world can never be solved by doc-

tors alone, but, must enlist hearty volunteer cooperation of the peoples themselves; and, no organization can mobilize the peoples of divergent views as can the Red Cross. For this reason, the five largest Red Cross societies have united to bring about universal Red Cross cooperation."

Live for something. Do good, and leave behind you a monument of virtue that the storm of time can never destroy. Write your name, in kindness, love, and mercy, on the hearts of thousands you come in contact with year by year; you will never be forgotten. No, your name, your deeds, will be as legible on the hearts you leave behind as the stars on the brow of evening. Good deeds will shine as the stars of heaven.

—Chalmers.

TYPHOID FEVER DURING THE GREAT WAR

According to a London newspaper, only 239 men in the British Army died from typhoid and similar fevers, and this low mortality is attributed directly to the antityphoid-inoculation practiced from the first beginning of war-activities; while 11,690 cases in the French army ended fatally before inoculation was begun. From other sources, we learn that, after inoculation against typhoid fever had been introduced in the French Army, the deaths from this disease diminished materially and that here also the protective value of the prophylactic inoculation was abundantly demonstrated.

Every now and again we read carping criticisms of prophylactic inoculations against bacterial diseases, and not only ignorant laymen, but, also, physicians who ought to know better criticize this procedure, insisting that it not only is of no value, but, is in fact, injurious.

It would seem, in the face of the figures cited in the foregoing, that comment is entirely supererogatory.

We need but to remember our own experiences with typhoid fever during the Spanish-American war and contrast them with those during the later occupation of Mexico and also with our own experience, during the great war, in our home-camps and in our expeditionary forces. While, unfortunately, many and serious deaths were demanded by infectious diseases, including cerebrospinal fever, pneumonia, measles, and others, against which prophylactic vaccination is not as yet possible, the morbidity and mortality of typhoid fever in the American Army have been so low as amply to confirm the observations in the British Army.

MEDICAL VETERANS OF THE WORLD-WAR

Many readers of Clinical Medicine will be interested in the new organization named in the heading, which was effected at Atlantic City during the meeting of the American Medical Association. It is designed to include in its membership physicians of the Army, Navy, Public-Health Service, and the former members of the draft-boards. Also, it was voted at this meeting to accept to membership physicians that have acted as assistant examiners during the draft. Colonel Victor C. Vaughan was elected president of the association, and Colonel F. F. Russell, of Washington, D. C., secretary and treasurer. Physicians eligible to membership should write to the latter for the necessary blanks. The membership-fee is only $1.00.

This organization promises to become a powerful one, and we know that every physician who 'did his bit' during the Great War will want to become a member. We urge every reader of Clinical Medicine who is eligible to send in his dollar and join at once.

THE WAR-DEPARTMENT EXHIBIT AT THE RECENT MEETING OF THE A. M. A.

At the recent meeting of the American Medical Association at Atlantic City, June 9 to 14, an exhibit prepared, under the authority of the Secretary of War and the Surgeon-General, by the curator of the Army Medical Museum, Washington, D. C., was on view, which illustrated the advances attained by the medical department of the army during the late war in its control of sanitation, medicine, surgery, hospitalism, and reconstruction of the disabled.

Construction and administration of hospitals for the care of sick and wounded was demonstrated by the Hospital Division, with typical layouts of hospitals and views of scenes at a number of hospitals, including the hospitals at the remodeled Greenhut Building in New York City, the general hospital at Fort Sheridan, Illinois, the Tuberculosis Hospital at Den-

ver, and camp-hospitals at Camps Dix, Mills and Bragg. The method of handling patients on hospital-trains through the ports of New York and Newport News, Virginia, the latest type of general mess and kitchen at army hospitals, including cafeteria-service and the proposed development of the Walter Reed General Hospital at Takoma Park, District of Columbia, into an Army Medical Center was also demonstrated.

The Sanitation Division operated a "delousing" plant, to show how typhus fever was kept out of the country by thoroughly cleaning the men and their clothing of the "cootie." Practical sanitation of Army posts and mobile units, both at home and abroad, were shown by a complete series of models of field sanitary appliances designed and constructed at the Laboratory of Field Sanitation, Ft. Riley, Kansas.

Methods employed by the army in handling infectious diseases, which have resulted in a marked reduction of the chief sick rates in the preceding generation, were exhibited by the section of epidemiology of the Laboratory Division. It included a complete field-laboratory outfit, such as was used on the western front for making diagnoses of suspected epidemics of disease, so that prompt isolation and treatment could be applied.

Lecture-slides, placards, posters, and pamphlets used by the army in combating venereal diseases during the training of the army and also during the demobilization, to interest soldiers returning to civilian life in the fight against this disease, also were shown.

Wax and plaster models were on view under the Division of Surgery, showing the results of operations upon wounds of the face and limbs by various methods, and demonstrating the fine results that have followed these measures in the case of which men, who, having practically lost their entire faces, have been given new ones. There were also models illustrating the effects of bone grafting in shell-wound cases.

Under the orthopedic-surgery section, was shown the attention given to the feet of the soldier. The exhibit embraced foot inspection, shoe alterations, foot exercises, and simple exercising-apparatus. The application of splints and the fitting of wooden legs, provisional arms, and special appliances, such as hooks, and tool-holders for those that have lost arms also was shown.

An x-ray machine which generates its own power for operation, and a bedside unit, together with an x-ray ambulance, packed with everything necessary for radiographic work in the field, with the operating crew, demonstrated this feature of army service.

The care and treatment of insane and neurotic patients was shown in an exhibit of the section of neuropsychiatry. The work of the army in caring for its horses and mules was also depicted in an exhibit of the Veterinary Division.

The Division of Physical Reconstruction had an interesting exhibit, illustrating the work of furnishing therapeutic adjuncts to medical and surgical treatment, with a view to hastening recovery and securing the best functional restoration for the disabled soldier. Articles of workmanship turned out by these patients, including beautiful knitted bags, knotted cord-work, bead necklaces, woven belts, colonial mats, and poster work at the various hospitals were shown.

Apparatus from the Medical-Research Laboratory at Hazelhurst Field, Mineola, New York, had been sent by the Air Medical Service, to illustrate the manner of training fliers so as to habituate themselves to motion in the air. It included types of oxygen-supply apparatus for use while flying at high altitudes: the whirling chair for equilibrium tests; apparatus for testing judgment of distances, testing the eyes, testing shade differences, and other tests. A rebreathing-apparatus for the altitude classification of aviators also was shown.

The work of publication of newspapers and magazines at army hospitals by and for soldier patients was illustrated by an exhibit.

The first American flag to lead a U. S. military detachment into Europe during the war also was exhibited. The flag was carried by the first army contingent to leave the United States, May 8, 1917.

DR. ABRAHAM JACOBI

As we go to press, the weekly medical journals are publishing tributes to Dr. Abraham Jacobi whose long and busy life terminated a few days ago. Having been born in May, 1830, Doctor Jacobi had

reached the age of eighty-nine years. He was one of the most respected and best loved medical men in the country, one whom the entire medical profession delighted to honor and who was, like his close friend, the late Carl Schurz, a type of the best American citizen of foreign birth.

While Doctor Jacobi was a physician first, last and all the time, it was especially the branch of pediatrics that owes most to him. He was the first to occupy the chair for diseases of children in an American medical college and was one of the leaders among physicians to devote particular attention to the recognition and treatment of diseases of babies and children.

Not only as a physician, though, but also as a man, as a citizen and as a colleague, Doctor Jacobi occupied an important place in the estimation of his fellows. He lived a rich life, full of untold good deeds and useful accomplishments, and his memory will ever remain green.

To love the public, to study universal good, and to promote the interest of the whole world, as far as lies within our power, is the height of goodness, and makes that temper which we call divine.
—Shaftesbury.

OUR FRENCH CONTRIBUTORS

The "Letters From France," which have been contributed for several months by Doctor Sherwood-Dunn, have proved of great interest, discussing, as they do, various occurrences and observations in which we are concerned more or less.

Doctor Sherwood-Dunn, while an American of Americans, has lived in Paris for many years and is thoroughly conversant with French conditions and familiar with French medicine.

It often is asserted that the sciences and arts are international. So they are. Yet, it can not be denied that the disciples of Æsculapius in different countries have followed lines and methods of observation and of practice that often are in accordance with the national characteristics.

Especially has French medicine always stood for courageous progress which was free from speculation and truly conservative, in that it always was based upon actual demonstrable data. Medicine owes much to our French confrères and gladly acknowledges this debt.

It is a source of particular satisfaction that Doctor Sherwood-Dunn has succeeded in procuring for us the promise of some of the leading clinicians in France to prepare original articles for publication in The American Journal of Clinical Medicine. The first of this series appears among the leading articles in this issue. It was written by Prof. Georges Luys, an English translation of whose important treatise on cystoscopy and urethroscopy, made by Dr. Abraham Wolbarst, was reviewed in these pages in March. We now also have in our possession an article by Professor Tuffier on the treatment of chest-wounds, one by Professor Hutinel, on hereditary syphilis, and one by Professor Prenant, on methods of teaching in general and of histology in particular. Communications by other men are in prospect.

It is intended to publish, as nearly as practicable, one of these important comunications every month.

THE FIGHT AGAINST VENEREAL DISEASE

Among many other things, the war has brought home to our attention the enormous distribution and frequency of venereal diseases and of their sequels. Under the influence of the abnormal conditions of living created by the establishment of huge armies, there occurred in Europe a terrific increase in the frequency of venereal diseases, and the authorities of all belligerent countries were confronted by the very serious problem of counteracting the injury certain to be expected from this grave morbidity.

The measures instituted by the medical department of the U. S. Army and U. S. Navy were productive of such good results that the venereal morbidity among the American expeditionary forces was less, decidedly less, than in the other armies. The war department handled the situation without gloves and did not hesitate to speak clearly and distinctly of syphilis, gonorrhea, chancre, and so on, a mode of speech to which, fortunately, we, at last, have become accustomed during the last few years, in sharp contrast with our formerly prevailing habit, when mock modesty and prudery made it impossible to speak of other than "blood-diseases," or "secret diseases."

The war-department has appealed to physicians and to public-spirited men and

women to assist it in its fight against venereal diseases and, truly, this now is becoming a civilian problem, increasingly great in importance as the armies are being demobilized. It is distinctly up to us, as physicians and as citizens, to cooperate, with the war-department and with those organizations that have been formed for the purpose of preventing and to overcoming these diseases, which are of such serious and fateful importance.

One of the associations that have been organized for the purpose of fighting the "red plague" is, the Illinois Social Hygiene League, the object of which is, to help to stamp out venereal diseases by means of treatment as well as by publicity and education, as recommended by the war-department. Although still young, there have been treated under the auspices of this League more than 1,000 different men, women, and children; 5,000 treatments have been given for syphilis and gonorrhea; nearly 100,000 pamphlets distributed to soldiers and sailors; a battery of four automatic stereopticons, showing the evil results of venereal diseases have been operated for seven hundred days at Camps Grant, Great Lakes, and Fort Sheridan. Permanent exhibits installed in comfort-stations at the City Hall and Municipal Pier and 1,000 notices posted in business-establishments in Chicago.

The League is now giving the best possible medical attention to 300 old and nearly 200 new patients each month—at cost to those able to pay and free to those who can not. It is conducting lectures, showing exhibits, and posting notices in stores and factories, and is doing intensive followup work among patients requiring this service.

This league has the hearty support of leading Chicago business men, educators, and physicians. The medical staff has at its head one of the most accomplished and devoted genitourinary specialists of Chicago, and it is composed of serious and capable men and women, who devote time and effort to this important work.

The Illinois Social-Hygiene League is an undertaking that not only merits recognition, but, being imitated throughout the country. It is in close touch with the social-hygiene movements started by the War Department Commission on Training Camp Activities and the U. S. Public Health Service, and it is accomplishing much in causing actively diseased persons no longer to be infectious to others, while, by spreading information, it undoubtedly has prevented many cases of serious illness the dire consequences of which so often fall most heavily upon innocent women and the children.

Physicians, no matter where they may live, should take an active part in this country-wide crusade against venereal infections. In cases existing, the treatment should be intensive and persistent until a complete cure is assured. The patients, themselves, should be instructed how to avoid infecting others and, if they refuse to follow these instructions, they should be rendered harmless by being interned in a hospital or clinic until they no longer can endanger the health of their fellow men.

Preventive work is always more productive in results than relief work. It is wiser as well as more humane, to erect a parapet along the top of a dangerous cliff than to provide an ambulance at its base.
—Sir Arthur Newsholme.

THE NATIONAL DEPARTMENT OF PUBLIC HEALTH

We have received a copy of what is known as H. R. 5724, a bill recently introduced in the House of Representatives by Mr. McDuffie: "To create a Department of Public Health, to authorize the appropriation of money for the conduct of said department, to authorize the appropriation of money for Federal Cooperation with the states in the encouragement and support of public health work, and for other purposes."

The activities of the Department of Public Health are to be guided by a Secretary of Public Health, appointed by the President and a member of the President's cabinet. The bill provides also for the appointment of an assistant secretary of Public Health and aims to centralize all matters concerning public health in this department excepting the medical corps of the army, navy and marine of the United States, these organizations remaining intact.

This is in agreement with occurrences during the war when public health activities were centralized, at least to a certain extent—necessarily. The attempt is being made to make it a matter of expediency and policy. It also is in accordance with efforts in England where a department of public health is being established and, final-

ly, it corresponds more or less to the imperial health bureau of the former German Empire.

There can be no doubt in regard to many advantages that probably will accrue from a centralization of the regulations concerning public health matters. Especially is it to be hoped that the vexatious questions of license to practice medicine and surgery will become a federal, national function with the result that graduates of reputable medical colleges, having passed the examinations of the federal licensing board, may practice their profession in any state of the Union without having to undergo further examinations.

Whether it will be "for the good of the service" that the secretary in all probability will change periodically with the administration, is a question that time will solve. The movement has been promoted and stimulated for many years. We believe that it has large possibilities for good. If this new department is to be created, it is to be hoped that there will be no attempt to exceed the bureaucratic methods of the presumably most bureaucratic country in the world, the former German Empire, although we are not without apprehension in that respect since the existence of severe and uncompromising bureaucracy at Washington, unfortunately, can not be denied.

Frankly we look forward to this change with mixed feelings. Nevertheless, we hope that it may be a means of solving many serious and difficult questions that are confronting the medical profession as well as the public at the present time.

Some happy talent, and some fortunate opportunity, may form the two sides of the ladder on which some men mount, but the rounds of that ladder must be made of stuff to stand wear and tear; and there is no substitute for thoroughgoing, ardent and sincere earnestness. Never to put one hand to anything on which I could not throw my whole self; and never to affect depreciation of my work, whatever it was. I find now to have been my golden rules.
—Dickens, "David Copperfield."

AMERICA'S DEFECTIVE MANHOOD

From the records of the Surgeon-General of the United States Army, it appears that of the several million men who were subjected to physical examinations for the draft in 1917 and 1918, more than one-half were rejected for physical causes, most of which might have been prevented by proper attention to the health of the growing child, as well as of the young man. The records of the Surgeon-General contain an impressive lesson which physicians should drive home to the people, encouraging them to pay more attention to commonsense living and to the prevention of disease.

The rejections for physical causes as they are recorded by the Surgeon-General are given in the following table:

Venereal Diseases	938,232
Heart Disease	564,768
Disease of the ear, including defects of hearing	525,600
Disease of the eye, including defects of vision	421,704
Flat feet	346,392
Alcoholism	296,640
Disease of the organs of locomotion	277,128
Hernia	209,304
Disease of the skin	174,672
Under weight	173,160
Disease of the respiratory system	156,600
Defective teeth	149,112
Weakness of mind	146,088
Defects of development	132,552
Disease of the genitourinary system, non-venereal	124,992
Varicose Veins	90,360
Disease of the nervous system, except as shown in detail	88,848
General Disease, except as shown in detail	82,800
Tuberculosis	76,824
Varicocele	48,168
Insufficient chest development	45,144
Disease of the digestive system, except as shown in detail	43,704
Physical debility	38,880
Curvature of the spine	36,144
Overweight and obesity	31,608
Hemorrhoids	22,608
Underheight	21,096
Disease of the circulatory system, except as shown in detail	7,560
Injuries	207,792
Rejected for causes not physical	1,721,304

Leading Articles

Electrocoagulation in Diseases of the Urinary Passages

By GEORGES LUYS, M. D., Paris, France

Professor of Genitourinary Surgery of the Medical Faculty of the University of Paris

EDITORIAL COMMENT.—This is the first of a series of original articles that are being prepared specially for publication in THE AMERICAN JOURNAL OF CLINICAL MEDICINE. Most of the manuscripts reach us written in the French language and are translated in the office of CLINICAL MEDICINE. We are happy to be able to record in this series the views of the leading clinicians in France. Our great Allies have accomplished much in almost every field of endeavor, by no means least in medicine and surgery.

EMPLOYED as a method of local treatment for neoplastic affections of the urinary organs, electrocoagulation constitutes one of the most effective and powerful therapeutic methods at our command. It was because of the good results obtained from electrocoagulation in the treatment of accessible tumors by Doyen[1], of France, that the utilization of this potent method of treating bladder-tumors was adopted. Completely to remove cystic tumors, Doyen[2], made an abdominal incision, after which he directed the electrocoagulation action upon the vesical tumor, through the opening. The result of his investigations was embodied in an interesting essay published by his son, Roger Doyen[3], who points out the important part taken by his father in the solution of this problem.

Thereupon, in 1919, it occurred to Edwin Beer, of New York[4], to act upon these tumors of the bladder through the natural paths, by means of a prism-cystoscope. After that, several American writers have confirmed the value of this procedure. The principal publications on this subject are those by Buerger[5], Gardner[6], Sinclair[7], McCarthy[8], Judd[9], Harpster[10], Binney[11], Watson[12], Pilcher[13], and J. D. Barney[14].

Having had occasion, in the past six years, to treat numerous diseases of the urinary apparatus by the method of electrocoagulation, I now desire to report my results and to describe my method.

The Apparatus Employed by Me

The apparatus that I employed were, at first, of foreign make. At present, I am using the bipolar diathermic apparatus of d'Arsonval. With this appliance, the tissues are not burned by a hot body while the electrodes remain cold. The passage of the current between the two electrodes, according as it is more or less intense, can produce in the parts between the two poles either simply heat (diathermy) or electrocoagulation, while the action of each of the poles is entirely different, according to the surface of each electrode.

The larger an electrode, the less heat it emits; conversely, the smaller it is, the greater will become the intensity of the heat and its power of penetration. It is for this reason that, in order to utilize in the urinary apparatus currents of high frequency, it is necessary to have two entirely different electrodes: one of these as large as possible, in order to obviate all sensation of heat; the other one very

*The literary references given by Professor Luys in the body of his paper have been left out, in order to save space. They will, however, appear in the reprint. Most of these references either refer to the author's textbook on the subject or can be found in it. The title of this publication is, Georges Luys: "*Traité d' Urétroscopie et de Cystoscopie*," Paris, Doin, 1916, also, Georges Luys: "A Treatise on Cystoscopy and Uretroscopy," translated by Abr L. Wolbarst. St. Louis, Mosby, 1918.

small, so as to secure the maximal caloric action in a limited field.

The first (indifferent) electrode consists of a very large uncovered zinc plate, 0.25 by 0.30, cm. in size. It is placed directly against the perineum. The second (active) electrode consists of an insulated copper wire 18 to 20 cm. in length, which is

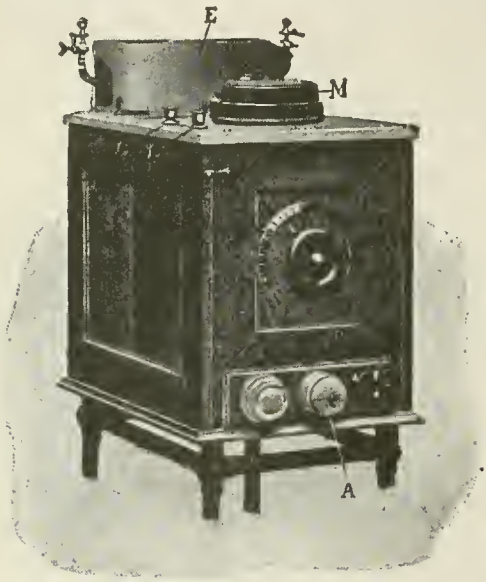

Fig. 1. Diathermic Bipolar Apparatus of d'Arsonval.

bent at right angles. This electrode has a guttapercha handle. (Fig. 3.)

The active electrode may exert a very gentle or an intense action, depending upon two factors, namely: the number of the milliamperes and, secondly, the distance from the surface to be treated or whether in immediate contact with it, or, the depth to which it is introduced into the tissues.

There are not, as stated, different kinds of currents passing between the two electrodes; it is always the same modality; however, action varies with the intensity and the depth at which it is applied.

The current is not applied continuously or for prolonged periods of time; rather, it is to be interrupted; this being effected by means of a pedal with which one can break the current at will. The duration of each application is from thirty to fifty seconds; but, they may be repeated for as long as half an hour.

The Action of Electrocoagulation

In order to produce, from these high-frequency currents, a suitable effect upon the mucous membrane of the urinary passages, it certainly is preferable to apply them directly without the interposition of any liquid; not, as has been the practice, through water. In this manner, the action is much more intense. In fact, it is utterly irrational, if one desires to destroy a neoplastic product, to interpose a layer of liquid between the current and the tissue that is to be destroyed; for, the action upon the neoplasm is infinitely more intense and more precise when the current passes directly from one to the other, as has many times been observed by me when "tunnelling" the prostate. Indeed, when the current passes normally into the prostatic adenoma after this has been thoroughly drained, it exerts its action completely and powerfully. When,

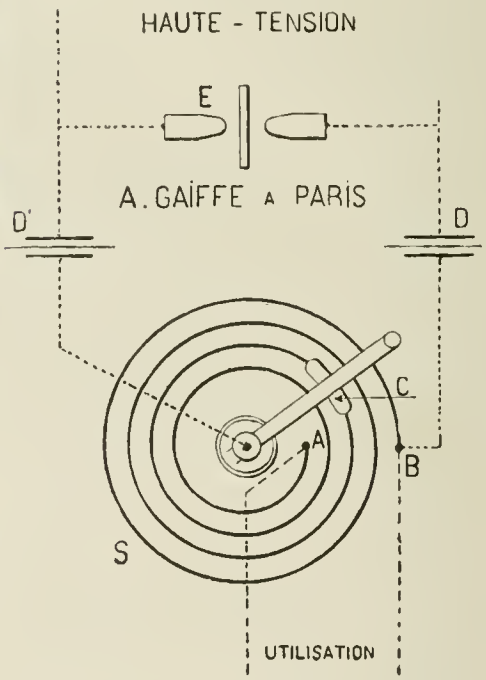

Fig. 2. Diagram of the Bipolar Apparatus of d'Arsonval.

on the contrary, a few drops of urine happen to bathe the operative field, it will immediately be seen that the power to effect electrocoagulation is greatly diminished. The truth of this assertion may be ascertained by applying my direct-vision cystoscope and my urethroscope when nothing intervenes between the tumor and the therapeutic agent.[15]

However that may be, when arrangements have been completed as has been

outlined; that is to say, the patient being seated upon the large electrode (which consists of a very large piece of sheet lead or sheet zinc), the other electrode being introduced within the direct-vision cystoscope and in immediate contact with the neoplasm that is to be destroyed, the following observations will be made:

When the fine electrode that has been placed within the direct-vision cystoscope is in contact with the tumor, a certain time will pass between the moment when the current is established and the time when

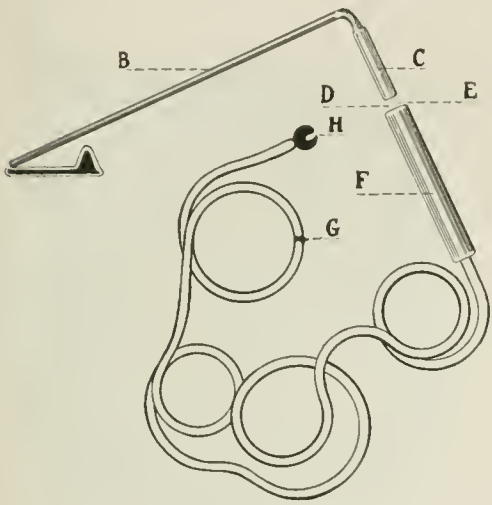

Fig. 3. Electrode for Endourethral and Vesical Electrocoagulation.

the noise of electric sparks indicates that the current is passing. These phenomena differ considerably according as to when the electrode is in intimate contact with, and buried into, the neoplastic growth or whether it is at a certain distance from it. So, when the electrode is buried deeply, one observes that it adheres strongly. If it is, for instance, an adenoma of the prostate that is to be destroyed, a well-applied electrode will adhere in such a manner within the tumor that, after a certain while, it requires reasonably strong traction to break the contact between the electrodes and the tumor, and, when the electrode has been removed, it will be found that an actual hole has been produced within the destroyed substance. It will be seen, therefore, that, in this manner, it is possible to destroy a large portion of the tumor in its depth.

The number of milliamperes employed varies between 180 and 250, a dosage that is well tolerated. If the patient is not anesthetized, he usually feels pain if the dose of 250 milliamperes is exceeded; still, it is easy to exceed this if an anesthetizing injection is made one hour previously. Then the intensity of the current can be increased, and it thus is possible to destroy considerable fractions of the tumor; in this event, actual cauterization of the tissues takes place.

In the other event, that is, if the electrode is held a certain distance away from the tumor, one may observe a series of sparks being detached from this electrode and passing to all neighboring portions. It is this action that I employ very frequently in the posterior urethra, and this mode of treatment actually is far superior to all those that have been proposed for lesions of the posterior urethra, such as soft infiltrations, papillomatous growths in the posterior urethra, and polypi of the verumontanum.

This passage of the sparks almost immediately causes the mucous membrane to blanch, and it is only if the electrode is applied for a long time that the white gives place to the blackish tinge of carbonization.

This sparking-process never produces any bad result in the posterior urethra, for, it is exerted only upon the surface. In the course of a posterior urethroscopy, when one has before him portions of the mucous membrane that bleed abundantly, even to such an extent that the view is obscured, one always is astonished to find that, after this spark-production, the hemorrhage is arrested almost instantly, and that one now has clear view of the mucous membrane.

Thus, we here have two kinds of action that are seemingly different, and which one can, at will, secure with high-frequency currents, namely:

1. Surface-action by spark-production.
2. Deep action by electrocoagulation.

In order to ascertain exactly the action of these high-frequency currents, I have taken occasion to apply them to vegetations in the balanopreputial groove. In the case of one patient, who had a large-sized tumor of this kind, about like that of a hazelnut, I passed a strong current for a long time. The tumor was immediately carbonized and in its place there actually appeared a cavity. I was in a position to observe this patient daily for almost six weeks and thus could

remark that, at the end of this time, cicatrization had not yet completely taken place; but that the cicatrix was pink in color and perfectly pliable, and that the cavity was gradually filling up.

Thus it may be seen what a powerful force one has at his command in this therapeutic measure, and one can rest assured that the destruction of benign neoplasms is final, without the danger of any recurrence.

The action of electrocoagulation is entirely different from that of galvanocauterization, and this difference is accentuated especially when it is employed for effecting a passage through an obstructing prostate. Indeed one of the great difficulties in the way of satisfactory galvanocauterization is precisely the stony hardness and extreme intensity of the edematous tissue following it, and which often is so pronounced that the wire, even at white heat, glides over the prostatic tumor without making an impression. Electrocoagulation, on the contrary, penetrates quickly into the prostatic adenoma and destroys it.

When a well-localized eschar is produced in a prostatic adenoma, it is of interest to know just what becomes of it. In the numerous cases that I have been able to observe, this eschar remains almost adherent for about six to eight days. Then, if the patient is quiet and not subjected to any fatigue, the eschar drops into the bladder, and I have had occasion some eight or ten days after the electrocoagulation, to institute a search in the bladder, and there found fragments of eschar that had become spontaneously detached and were of such size that they could not be ejected during micturition or removed by means of the sound. They had to be removed from the bladder with the aid of the direct-vision cystoscope, which permitted to grasp them with an intravesicular foreign-body forceps. At other times, these eschars are but small, about of pea-size, and thus may be passed during micturition.

Accidents

American authors have mentioned several cases of perforation following the application of electrocoagulation in the bladder.

Possibly such an accident is attributable to the method employed: for, if a prism-cystoscope is made use of, the field of vision is much less clear than with the direct-vision cystoscope. This latter instrument is the only one that I have at all times employed and I have never observed the slightest injury nor indication of perforation. (Fig. 4).

Among other accidents that may occur following electrocoagulation, the three principal ones to be mentioned are: (1) retention of urine, (2) hemorrhage, (3) infection.

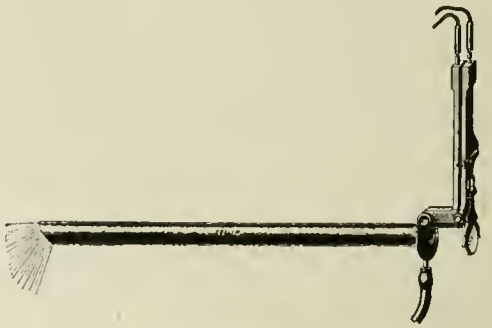

Fig. 4. Direct-vision Cystoscope After Professor Luys; Fully Armed with Lamp and Magnifying Lens.

1. *Retention of Urine.*—The electrocoagulation exerts an extremely powerful action upon the urethral sphincter. Indeed, if, some time after the operation, one desires to pass a catheter, even a very small one into the urethra, this often is impossible, unless it is absolutely rigid. The contraction of the sphincter is so violent that one is obliged to resort to a rigid mandrin inside the catheter.

One must be forwarned of this important complication, and, it is well, in the case of those patients in whom complete retention occurs, to insert a permanent catheter, with the help of the mandrin. However, this contraction of the urethral sphincter yields very rapidly and disappears completely in the course of about twenty-four hours.

2. *Hemorrhage.* — Hemorrhage after the electrocoagulation occurs but rarely immediately; more often, it is observed when the eschar produced through the operation becomes detached. This takes place, as already indicated, in from four to eight days after the operation.

The hemorrhage may be considerable: still, I never had to report a fatal outcome. In the majority of cases, the hemorrhage ceased in the course of twenty-four hours after the insertion of a permanent catheter.

3. *Infection.*—The infection that occurs as a result of the tunnelling of the pros-

tate almost always depends upon the condition of the urine. If this is limpid, infection hardly ever occurs. If, on the other hand, the patient belongs to the "infected prostatics," the tunnelling-operation will give rise to a localization of the infection. In that case, there forms, on the wound, a whitish deposit that may for a long time, be the cause of pyuria and of pain during micturation. If it has not been possible, by repeated urethral irrigations, to disinfect the wound completely, one may resort to local disinfection, by employing slight curettment (using the direct-vision cystoscope) of the false membranes that have formed in that spot. By applying silver nitrate or tincture of iodine, daily, healing will take place readily.

Fig. 5. Appearance of a Bladder Tumor on the Middle of the Vesical Trigonum Before Treatment.

High-frequency currents have been employed inside the bladder, upon the prostate, and in the urethra.

Electrocoagulation in the Bladder

Electrocoagulation has been employed for the treatment of benign as well as of malignant tumors of the bladder.

In Benign Vesical Tumors.—The high-frequency modality employed in the conditions indicated by me gives the most wonderful results in the treatment of benign bladder-tumors. It is truly the treatment of choice for papillomas of the bladder. Each time that I have employed it, I have observed complete disappearance of all these new-formations and they never reappeared.

All those that have employed these currents with the help of the prism-cystoscope, by dilating the bladder with water, always have been hindered by the presence of this fluid. For, as soon as the current has flowed for a few moments, there occurs a violent development of gas, which impairs the view and obscures the field of vision completely.

In order to resume the treatment, it is necessary to change the fluid. Sometimes, indeed, the cystoscope must be changed, and these numerous maneuvers materially complicate the operation. On the other hand, if the bladder is filled with air, this disturbing element is absent, and it is possible to apply the current as gently as may be necessary or as violently as one may desire.[15]

If one gets an excellent view, with a direct cystoscope, there, nevertheless, are in this method two inconvenient factors which, though, are easily remedied after a little experience. First, papillomatous growths are seen much less well if the bladder is not distended with fluid. Instead of floating in the fluid, they flatten out against the vesical mucosa on which they form only a very slight elevation; and, certainly, a considerable practice is necessary to recognize them upon the normal vesical mucosa (Fig. 5).

Fig. 6. First treatment of electrocoagulation upon the bladder tumor shown in Fig. 5. With the direct-vision cystoscope one can see the groove dug by the electrocoagulation at the base of the tumor.

The second source of inconvenience becomes manifest if the patient is obese and if the folds in the bladder are not smoothed out while the subject is in a recumbent position; but, it always is possible to outline the vesical tumor no matter where it

is situated, by having an assistant lifting up the wall of the bladder during the examination. (Figs. 6 and 7).

These are some slight disadvantages, but, which may easily be overcome by a little practice.

The application of the high-frequency current to papillomas of the bladder, in order to realize its fullest effect, must be repeated several times—two or three times, as a rule—for, it is quite difficult to destroy the bladder-tumor completely in one sitting; while, with intervals of eight or ten days between the sittings, excellent results are secured.

Fig. 7. Appearance of the bladder tumor shown in Fig. 5 eight days after the first electrocoagulation treatment. The top of the tumor has sunk forward.

I have never observed untoward effects from the application of high-frequency currents to benign tumors of the bladder. (Figs 8 and 9). It is so easy to grade the effect, that it seems absolutely impossible to cause perforation. However, it is a good precaution not to anesthetize the patient, and then the latter almost surely will give warning when the operator passes beyond the limits of the tumor.

As a matter of fact, a vesical tumor is nearly always entirely painless. The pain that is felt by the patient is mentioned only if the action of the high-frequency current is directed upon the sound mucous membrane.

I must mention still one other slight disadvantage, one that happened to me in one instance. It was in the case of a woman, who had several papillomas within her bladder and which had been destroyed during a single sitting. When this woman came to see me again, two or three weeks later, she complained of having suffered severe pains in the bladder.

An examination with the cystoscope revealed that the inflammation present resulted from the fact that all those portions that had been affected by the electrocoagulation had sloughed off into the bladder; and, having been encrusted with lime salts, they had formed two or three calculi, which, though, it was extremely easy to remove by means of a forceps.

In Malignant Tumors of the Bladder.—If the effect of the high-frequency current is marvelous in its curative effect upon benign bladder-tumors, this action seems to be reduced simply to a palliative one in the case of malignant tumors of the bladder. While I have observed the retrogression of cancerous tumors in the bladder, under the influence of electrocoagulation, I also have,

Fig. 8. Second electrocoagulation treatment upon the bladder tumor. The base of the tumor is completely carbonized. The top forms a white eschar.

in most cases, been able to cause a diminution or cessation of hematuria by this means.

Electrocoagulation in the Prostate

The action of electrocoagulation in the prostatic gland is very interesting and may be manifested in two ways.

The first, while opening up a passage through the prostate, is, to arrest and staunch entirely the blood that flows when the prostatic lobes are cut by means of the galvanocautery. When, by the aid, of the direct-vision cystoscope, one has located the bleeding spot, it is sufficient to apply for

but a few moments the electrode of the high-frequency machine, when the bleeding will be instantly arrested. In this way, one never has to fear any immediate hemorrhage.

But, the high-frequency current may be employed, also, for the direct destruction of the hypertrophied prostatic lobes. This action is extremely important, for, it makes it possible to penetrate into the depth of the prostate. However, at least immediately, it seems to be less rapid than the action of the galvanocautery.

If the active electrode is applied to the prostate, one can ascertain that it penetrates deeply into the prostatic tissue, which

Fig. 9. Appearance of the bladder fifteen days after electrocoagulation. The tumor has entirely disappeared. There only persists some edema of the floor of the bladder.

it destroys;—it breaks up the adjoining portions and transforms the entire prostatic region coming under its influence into an actually carbonized body. I have had occasion to make an intense application of this electrocoagulation in the case of a diseased lobe of the prostate, and found it so carbonized. All went well for eight days, the patient feeling no bad effects, and, on the ninth day, he passed, while urinating, the piece of the prostate that had thus been carbonized.

The combined action of the galvanocautery and the high-frequency current yields the most remarkable results in this piercing of the prostate, and, by removing prostate obstruction, it makes it possible to secure a natural discharge of urine.[18].

The actual causes of mechanical dysuria in the presence of prostatic hypertrophy can be recognized only by a complete and perfect endoscopic examination, and it is only in the light of such an investigation that it is possible actually to know what interferes with urination. There may be one of two factors.

The first, caused by the neck of the bladder being raised above the base of the bladder and called prostatic bar, is a true transvesical dyke between the bladder and the urethra at the level of the neck of the bladder. It results from an abnormal development of a prostatic adenoma.

The second obstacle results from the uniting of the two hypertrophied prostatic lobes, with the formation of a very irregular channel, the length of which may be 6 to 8, up to 10 centimeters.

These two primary lesions of the prostatic urethra are readily improved by means of local treatment through the urethra.

Technic of Effecting a Passage Through the Prostate

The destruction of obstacles existing in the prostatic canal must be accomplished with the aid of my direct-vision cystoscope, the manner of using which I shall not at-

Fig. 10. Normal Appearance of the Neck of the Bladder with Prostatic Hypertrophy.

tempt to describe here at length, because that I have done in my special publications. However, there are two points upon which it is necessary to insist, in order to show the necessity of making use of this instrument. (Fig. 10.)

1. The destruction, by means of heat, of the urethral portions of prostatic adenomas is accomplished as it should be, namely, in a medium of air, and not in water. For,

the system of aspiration that characterizes my cystoscope prevents the field of vision from being constantly soiled by urine or by blood and permits the operator to see readily what is being done.

2. The horizontal position, which is absolutely necessary during this operation, permits one to differentiate clearly between those parts that, at the level of the neck of the bladder, belong to the prostate, and those that belong to the bladder.

After the cystoscope has been introduced into the bladder, one proceeds to bring the vesical end of the cystoscope in line with the neck of the bladder. Then, with the galvanocautery directly in sight, one cuts vertically the prostatic bar. Then the burned section is enlarged by tracing the

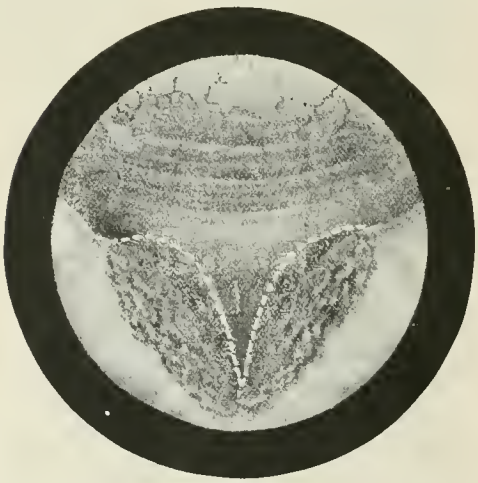

Fig. 11. Commencement of the Destruction by Burning of the Hypertrophic Prostatic Lobes.

letter V, the two arms of which will diverge to the extent to which the searing-process has been carried out. (Fig. 11.)

During this first step of the operation, care must be taken that the lower point of the V rests well on the lowermost part of the bladder. In doing this work, an actual channel is being dug.

The second portion of the work consists in the destruction of the lateral lobes, by digging into them as one would dig potatoes. By gradually moving the cystoscope-tube back and forth, a tunnel is ultimately dug, which, to be complete and effective, must be extended from the neck of the bladder to the posterior border of the verumontanum.

When this tunnel has been properly enlarged, so that the cystoscope tube passes completely, and without difficulty, through the entire length of the prostatic urethra, one may be quite certain that not only will the patient be able to void his urine without trouble, but, that, moreover, he will empty his bladder completely and that no residual urine will be left.

It may be added that it is preferable to accomplish all his work in several sittings, at intervals of about eight days. In general, from three to six sittings will suffice.

But, if the action of the galvanocautery has been intense and rapid, it frequently gives rise to an oozing of blood. As soon as this become aggravated, the galvanocautery cannot, as a rule, arrest the hemorrhage. It is at this time that the operator must know how to employ the electrocoagulation process; and he will be astonished to observe the rapidity with which, under its influence, the bleeding is arrested almost immediately. The electrocoagulation acts here exactly like a hemostatic upon a cut blood-vessel.

This piercing of the prostate ought to find application in a considerable number of cases in which the gland is not greatly enlarged. For small prostates and for insignificant urine, the operation of prostatectomy, as hitherto done, is quite out of proportion with the observed symptoms Moreover, despite all the improvements perfected during recent years, prostatectomy, at the present time, and even in the hands of the most accomplished surgeons, offers undeniable disadvantages. This is true especially if the posterior urethra and the bladder are infected, and, in these cases transvesical prostatectomy clearly is contraindicated.

This tunneling of the prostate is without danger, whatever. It calls neither for general anesthesia, nor need it be done in the hospital. It may even be carried out in patients suffering from renal deficiency so that, for that reason, they could not be subjected to any serious surgical operation.

The results of the method not only are immediate, but, also, are lasting; for, one of my first patients thus operated upon, more than four years ago, was seen again only a few days ago. His condition continues perfectly satisfactory. The symptoms of urine retention, of which he had complained, have not returned.

After this operation, two facts are worthy of observance, namely: on the one hand, there is the complete disappearance of the

residual urine that had obtained before, and, on the other hand, the force of the urinary stream is greatly increased.

At present, forty-seven patients have been subjected to this tunneling of the prostate, and among them I have not had to record a single death from the operation.

Results in Detail

The details of the results are as follows:

One patient had submitted to only one sitting of the tunneling operation, refusing to continue the treatment.

One other could not be observed for a sufficient length of time, because of the war.

The third patient, 68 years of age, died between two treatments, in consequence of a serious uremia. He was treated in May, 1918, and died the September following.

Five other patients are at present under treatment.

At the present time, 39 patients have been subjected to the tunnelling of the prostate, with perfect success.

Among these 39 healed patients, I mention the following:

A man 80 years of age, who, on arrival at the Besanzon Hospital, was suffering from complete retention and had to submit to an emergency-laparotomy. By reason of his poor state of health, he could not survive a secondary prostatectomy, because his elimination of urea was very bad. The tunnelling enabled him to empty his bladder in the natural way. The residual urine did not exceed 30 Grams at the end of the treatment, and the good results still persisted one year later.

Another case that is very interesting was that of a man of 60 years who, on account of complete retention, had been subjected to laparotomy at the Necker Hospital. After completing the tunnelling and, after an abdominal fistula had closed, he passed the urine naturally with a residue of 3 Grams. This patient was examined by Doctor Legueu, to whom I sent him in November of 1917.

Still another interesting patient is a man of 45 years, in whom there was a retention of 300 Grams, and to whom Doctor Le Fur had suggested prostatectomy. This man did not have more than 7 Grams of residual urine after the tunnelling operation. In this condition, I sent him to Doctor Le Fur, who saw him in September, 1917.

Another case that is particularly interesting is that of a man 72 years old who came to consult me, at the Military Hospital at Versailles, on March 29, 1918, showing a residual urine of 560 Grams. A few sittings of the treatment were effective, yet, while the prostatic bar was completely destroyed and the prostatic lobes were separated, the patient nevertheless persistently had a residual urine of 250 Grams. The cause of this apparent failure was found in the discovery of an enormous diverticulum of the bladder, which held the 250 Grams of urine.

Very good results also were observed in a man of 60 years, who had been referred to me by Doctor Baillet. On May 31, 1918, his prostate was found to be very large and there was a residue of 600 Grams. After three treatments, this residue had disappeared.

Finally, one very recent case was referred to me by Doctor Cazin. The patient was a man of 73, with a very large prostate and complete urinary retention that had caused Doctor Cazin to perform abdominal section, so as to drain off the urine. In this manner, the patient was able to exist for one year. At the end of that time, the patient was improving and importuned his surgeon to close the fistula, demanding to be put into a condition in which he could empty his bladder in a natural manner. For this reason, Doctor Cazin referred the patient to me, and, after four treatments of tunnelling, the man was able to urinate without trouble. The closure of the abdominal fistula was effected in March, 1919.

It thus seems that, in the tunnelling of the prostate, we have a method of treatment that is truly promising and one that should be followed. It is readily agreed to by all patients, since, thanks to it, they will not have the worry of being confined in the hospital for six weeks longer; and, moreover, they will escape the dangers associated with any serious surgical operation.

Electrocoagulation in the Urethra

The application of the high-frequency current in the urethra, especially in the posterior urethra, has been employed but little up to this time.

With the instruments by which the unfolding of the mucous membrane of the posterior urethra is produced by means of water, the high-frequency methods are extremely difficult, for the same reasons that I have mentioned as applying to the blad-

der; that is to say, the objectional production of gas bubbles, which completely obscure the field of vision.

The instrument of choice for the application of these currents in the posterior urethra certainly is the simple air-urethroscope.

I have had occasion to apply these high-frequency currents for the treatment of papillomatous lesions of the posterior urethra, which are much more frequent than one would think and which always are localized in the prostatic groove. The application of electrocoagulation in these cases must be done very gently; however, the results obtained are absolutely marvelous.

On examining the papillomas with the urethroscope, one has nearly always before himself nothing but a bloody cloth, for, these papillomas bleed on the slightest touch.

If one is satisfied, to tampon with cotton, according to the old method, the procedure is extremely difficult. On the other hand, if one resorts to the only satisfactory method for drying up all the oozing surfaces, this method being one of mechanical aspiration, with the aid of a water-tube it is possible to overcome this oozing very easily, and then to see exactly the form, the size, and the mode of implantation of the papillomas. If correctly utilized, it is very easy to apply the active diathermic electrode and to destroy these growths completely. But, here it will be preferable to utilize only sparking and scarcely to touch the urethral mucosa.

One will be astonished to discover, how, after all bloody oozing has stopped promptly, one gets a clear posterior urethra, and that it is possible to destroy at will all pathologic products that are found in the prostatic sinus.

The diathermic currents may be employed also for the destruction of prostate cavities upon the study of which I have insisted.

These high-frequency currents not only serve to destroy the fistulas and the bars that hinder perfect drainage in chronic suppuration of the prostrate, but, also, promote the cleaning of the entire interior of the prostatic cavity and the destruction of all granulations that prevent healthy cicatrization of the tissues.

In a general way, if one employs the diathermic currents, whether upon the prostate, for the purpose of destroying the prostatic lobes or of destroying papillomas in the prostatic sinus, or to treat prostatic cavities, one may be certain that the cicatrices are absolutely supple and never will give rise to even a trace of recurrence.

I have had an opportunity to examine patients, who were treated in this manner, several months after the operation and to inspect closely the condition of the mucosa. I then saw that this was not contracted but perfectly supple; also that all papillomatous growth had completely disappeared and had not reappeared.

I assert that, very often, I have been able to observe an absolutely abnormal persistance of gonococci in individual that carry these papillomatous growths in the posterior urethra. The destruction of these new-growths by means of electrocoagulation produced a complete and definite drying up of the urethra and prevented forever all recurrence of the infection.

I have had occasion to examine a cancer of the posterior urethra coexisting with a prostatopelvic carcinosis. The diathermic applications that I made in the posterior urethra were not followed by any good results, so far as cure is concerned; and here, as in cancers of the bladder, I am of the opinion that high-frequency currents can act only in a palliative way.

In the anterior urethra, high-frequency applications are employed much more rarely. Nevertheless, I have been in a position to resort to them when it was a question of small localized hemorrhages that did not stop spontaneously, but, on the whole, the indications for electrocoagulation in the anterior urethra are far more rare than in the posterior.

Electrocoagulation may, also, supplement the use of the knife, under certain decidedly interesting circumstances.

Hugh Hampton Young[18] has published three very interesting observations, in which cases he employed electrocoagulation, in order to incise the interior extremity of the ureter that contained a calculus visible through the cystoscope. The operation of electrocoagulation made it possible to enlarge and also to incise the interior extremity of the ureter, and owing to the ureteral dilatation thus produced it became possible easily to extract the calculus.

Dr. H. W. E. Walther[19] also, published a case-report of great interest, concerning a calculus situated in the diverticulum of

the bladder and which could be removed through the natural passage, thanks to electrocoagulation by which the opening of the diverticulum was enlarged. Several days later, he was able to seize the calculus with forceps. The calculus thereupon fell into the bladder ,the opening being sufficiently large, and could be removed through the natural passage.

These two applications of electrocoagulation are extremely interesting and may open the way for a local treatment of urethral lesions that will certainly be followed up in the future.

Physiotherapy at Fort Sheridan

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Director of Physiotherapy, U. S. General Hospital No. 28

EDITORIAL COMMENT.—The reconstruction work now being carried out at Fort Sheridan is typical of the efforts of the Government to secure complete reconstruction and rehabilitation of wounded soldiers and sailors through which they shall be enabled to re-enter active civilian life without an undue handicap.

WHILE business waits for readjustment upon the results of the Paris conference; while thousands of homes await the steady flow of the American units now held no longer necessary along the Rhine; the rehabilitation of the wounded has been going on steadily and unobtrusively, at the Reconstruction Army Hospitals in the United States, since the signing of the armistice in November.

The sudden cessation of hostilities called forth heroic efforts in construction, to meet the emergency. That the machinery for accomplishment was adequate, that the plans of the Surgeon-General's office were susceptible of forced effort, General Hospital No. 28 at Fort Sheridan, Illinois, exemplifies. On October 1, 1918, not a stick of timber, not a shovelful of dirt, not a laborer or mechanic disturbed the martial atmosphere of the old army-post. In less than four months, the place was metamorphosed: a hospital with a capacity of 4700 beds had arisen and was in full operation. With the gradual passing of the workmen, with the completion of infinite details, the hospital has smoothed its functions by skilful management, until it stands an example of the accomplishment of forethought, professional attainment, and administration.

Value of Prophylaxis and Sanitation

To appreciate what prophylaxis and sanitation have accomplished for efficiency of troops in the field, one has but to scan the records of earlier wars. The same attention to detail in the maintenance of fighting-strength was evidenced in the disposition of medical units and the evacuation of the wounded; the nature and degree of the disability determining the destination of the patient. It, naturally, came to pass then that the service of the general hospitals in this country would be the redemption of subacute and chronic medical cases and the repair of gunshot-wounds and fractures, involving peripheral nerves and deformities of soft and hard parts. And the War Department insists, and is seeing to it, that the derelicts of the Civil War shall have no counterpart at this time from either the surgical or economic standpoint, so far as human skill and effort can avail to make men useful.

To this end, the Division of Physical Reconstruction of the Surgeon-General's office organized physiotherapeutic and educational sections, to supplement the work of the medical, surgical, and orthopedic departments. Of the activities of the educational section, it will suffice, for the purpose of showing its correlation with physiotherapy, to state that the curative workshop is designed to develop, through the arts, a functional response from hitherto disabled muscles, imbuing the patient with a sense of power to perform and shifting the emphasis from disability to ability.

Physiotherapy is a treatment-department. Its sphere of action is to supplement the technic of the surgeon, the materia medica of the medical officer, and the appliances of the orthopedist. The work, as outlined and conducted at No. 28, may be considered illustrative of the general

Fig. 1. Showing Massage Room in Operation. Radiant Light is Often a Valuable Adjuvant in Massaging Cold Extremities.

method in vogue in all reconstruction-hospitals. Electrical modalities, massage and passive motion, hydrotherapeutic agencies, radiant heat and light and muscular re-education, from the zero of volitional response to the limit of redemption, are accomplishing what no other agencies can effect.

The correlation of the department to the ward-service is briefly this:

The Ward-Surgeon, who is responsible for the patient, his professional and nursing care, his privileges and his discipline, refers the subject to the Department, either for specified treatment or for suggestion as to the applicability of physical measures. In either event, the appropriate treatment is prescribed and the patient is assigned to his daily hour.

The exigencies of the case may call for more than one type; in these cases (and they are the rule rather than the exception), the order of application is specified and the treatments are completed before the patient returns to the ward. The Ward-Surgeon is kept in close touch with the patient's attendance and progress, to the end that nothing may retard his discharge from the army when he has reached the maximum of improvement. On this basis, and this only, will the Ward-Surgeon nominate him for separation from the service.

At Fort Sheridan, with its present quota (July 1) of 3600 patients, 57 Reconstruction-Aides (physiotherapy) are giving manual manipulation by scientific application of the principles and therapeutic effects of massage and passive motion. These young women have enlisted for the emergency, have been trained in courses formulated by the Medical Department, and, without exception, have been imbued with the same spirit of devotion to the welfare of the American soldier that has been manifested by the womanhood of the land.

It is nothing short of remarkable that a brief training could have inculcated so ardent and professional an interest as is manifest, not alone in the intelligent handling of trophied muscles and fibrosed joints, but, in that touch of understanding womanliness that brightens the day and engenders the hope and confidence of restoration to usefulness. There is scarcely a condition that does not ameliorate under massage. Whether it be, to stimulate the circulation and absorption in long immobilized parts or to overcome shortening of fibroelastic elements of tendon, muscle-sheath or ligament, or softening and freeing adherent scars from periosteum and subcuticular tissues, massage is filling its function in the program.

No word has been more severely distorted than that of massage. No therapeutic measure has been more perverted in speech or in practice. From the skilled manipulation of tissues, guided by a knowl-

edge of anatomy, an appreciation of physiology and a grasp of pathological change, the concept of massage descends through infinite depths to the wares of the barber-shop and the resounding slapping of the Turkish-bath masseur. Innocuous as these chastisements are, to call them massage, but confuses the mind of the casual ob-

Fig. 2. A corner of radiant heat and light section. The illustration shows different types of applicator.

server as to the therapeutic value and use of scientific manual manipulation of tissues.

Some Specific Applications

An extended service, at this hospital, on peripheral-nerve injuries, has necessitated the organization and special training of a

Fig. 3. Electro muscle testing. The testing electrode is being applied to the flexor group of the left arm. The nurse is manipulating the induction coil in response to the officer's directions for current dosage.

detail of aides on muscle reeducation. Working on muscles that have been paralyzed by severance or incarceration of their nerves or that have been immobilized as a result of gunshot fractures, this group, by overcoming resistance of limited joint motion, by stretching the powerful (and usually contracted) muscles of opposition, by giving the weakened and atrophied muscles the postural opportunity to assert contracting power, by fostering the patient's concentration, is applying to the ravages due to high explosive the practice that science wrought for the victims of poliomyelitis. And with no less benefit.

A daily diary is kept, by the operator, of changes in behavior of each subject. Improvement in physical character suggests modification of type of manipulation or dosage thereof. Amount of angular range at joints is recorded on the

Fig. 4. Incandescent cabinet bath. The picture illustrates the provisions against cerebral congestion. Observations are made on patient's weight after treatment.

Silver projector with or without the use of the lead tape and the entry is made in degrees of movement. The date of beginning volitional response at the zero-point of effort is carefully watched for, and noted, and increasing power toward 100 percent becomes the index of progress to cure.

Unquestionably, the distribution or nature of cases differs in the various hospitals. The great proportion of high-explosive injuries of extremities at Fort Sheridan, is, doubtless, a matter of selection and concentration. Its effect upon physiotherapy has been, an extended service in the application of two electrical modalities: (1) negative galvanism, with its proper-

ties of vasodilation and rendering soft and pliable cicatrices and fibrous tissues generally, and (2) alternating current through the slow sine-wave, to exercise paralyzed muscles the innervation of which is interrupted.

With the object of overcoming cicatricial contraction by means of disintegration of newly formed connective tissue, nega-

Fig. 5. Depicting the beginnings of volitional muscle reeducation. Note that the extremities are placed in repose on frictionless surface; that gravity is overcome by posture; that the parts to be acted upon are placed in a position requiring the least possible effort from the weakened muscle. A is case of "drop foot"; B of "drop wrist."

tive galvanism, with its attraction for hydrogen, has been the agency of our choice; and it has more than fulfilled its theoretical adaptability in the freeing of scars and in rendering unnecessary operative interference in hundreds of instances. The excellent results of similar action by radium and the roentgen-ray reported from France are paralleled in our use of the radioactive-clay electrode. With equal parts of glycerin

Fig. 6. Sine wave in action. Here again posture, friction and gravity are considered in reducing muscle effort. In posing this picture the electrodes have slipped and are not in exact apposition to the tibillis anticus.

and water, the clay is made of the proper consistency, rolled out to half-inch thickness, cut so that the electrodes are of equal weight, molded to the part and then bandaged on. The utmost caution is exercised by the operators (hospital-corps men in charge of an expert technician, himself a sergeant, first-class, Medical Department) to gauge the amperage and length of application to the skin reaction. Whether the radioactivity of the clay is potent or not, the coaptation of this electrode is far superior to any other and, under this treatment, scars traversing joints and limiting their action have, without exception, yielded, become soft and ceased altogether to interfere with function. Not a single patient has failed to respond; many have been discharged completely cured of trophic, motor, or sensory disturbances.

Ionic Medication. The Sine-Wave

Specific drug-ionization has had a place of minor importance in our service. This is because of the limited number of cases in which it was indicated and due to the

Fig. 7. Treatment for splanchnic neurasthenia. The electrodes are on the side of the spinous processes between the 7 and 8 dorsal vertebrae.

constant demand upon our galvanic controls by nerve incarcerations. In the comparatively few cases in which potassium iodide and sodium salicylate have been employed, the results have been in keeping with the history of ionic medication.

The slow sine-wave has no polarity. It has the power to stimulate the contractility of muscle, apart from nervous convection of stimuli. Other modalities, such as faradism, and galvanism, will set muscle-tissue in contraction, but, the former is tetanic in action and unpleasant in sensation, while the latter is a polarizer. The slow effort-like contractions, with gradual undulations of the slow sine-wave are perfect imitations of the voluntary contractions that best develop muscle in size and strength. A case in point: Under this treatment, a patient awaiting operation for ununited fracture of the forearm had to have his split cast enlarged three times.

The difficulty that was anticipated in locating and securing the assignment of

enlisted men either of experience or adaptability to act as operators was happily solved at Fort Sheridan. Men with a knowledge of anatomy were not to be found outside of medical officers; familiarity with the action of electrical currents and the recognition of their selective action on the musculature is as rare in the army as outside of it.

Starting with one experienced man, a group of enthusiastic operators has been trained to carry out treatments under the eye of a medical officer, to the end that damage to paralyzed muscles and anesthetic areas has been practically absent. Electrodes are exactly applied to the muscle to be treated and the current is turned on gradually. The important considerations of quality of contraction and period of rest are observed to a nicety. The slogan, from the first, has been, "undertreat"; and no better index of the painstaking adherence to the welfare of the patient by the boys that had no chance to "go over" could be

Fig. 8. Physical education by medical gymnastics. The Sergeant is demonstrating to the patient "stride stand; right knee bend" to strengthen the quadriceps. This case is about ready for discharge.

adduced than the radiance on the face of the overseas-lad when his muscle "comes back".

And, on the medical side, mental depressions in neurasthenic types have responded definitely to the improved tone imparted to involuntary muscle by the sinusoidal current. The surging wave is applied on both sides between the posterior roots of the seventh and eighth dorsal nerves. Faradism and high-frequency current have had a limited range of usefulness in the service at Fort Sheridan.

Other Modalities Less Serviceable

Choice of agencies is responsible for the more or less cursory allusion here to faradic and interrupted galvanic currents and positive galvanism. Our experience with

Fig. 9. Treatment Room in Ionization. Sinusoidal Room in the Background.

faradism, as a therapeutic agent, in the conditions that come to physiotherapists for treatment, is, that it is inferior to the slow sinusoidal current as a passive muscle-exerciser. The same comment holds true of interrupted galvanism, which some authorities contend should be the modality of selection. In character of the curve of stimulation, in chemical effect upon the tissues, in amount of fatigue and sensation to the patient, and (in our service) in the measurable results, interrupted galvanism is not to be compared with the alternating current.

Again, we have weighed the comparative results of faradic current and the rapid sine-wave in numerous cases of sensory disturbances in reactions of regeneration and neuritis, and the balance has persistently been in favor of the sine-wave, and that, not only because of its prompt analgesic effect, but, because of the permanent return of normal sensation.

The faradic current is of undoubted service in certain psychoneuroses requiring symptomatic treatment. An interesting case of paralysis of the left facial nerve, caused by exposure to cold in the trenches, recovering under electrical stimulation; a neuritis, that had proved obdurate to a gamut of remedial measures, yielding to the sedative influence of the rapid sine-current; a bronchial irritation, that had baffled ordinary procedures, responding to

diathermy; disturbed vision of neurotic origin, disappearing under the high-frequency current through vacuum-eye electrodes; these are a few instances that relieve the monotony, yet, which point the way to the more general applicability of these agencies of the physician's armamentarium both with satisfaction and utility.

Medical Gymnastics

Physical education through "setting-up" exercises greeted the recruits on their induction into service. The muscle training then was general. The soldier was brought to the exercise. His body was being fitted to play its part in the organization—to be the fighting unit. To be useful to the army, he must be altogether fit. Not so his physical education in the hospital. Here he is to be made useful to himself. Medical gymnastics for the correction of limitations, both muscular and visceral, follows, as the night the day, the more primary and delicate reeducation described above. The activities of physiotherapy being purely remedial, its gymnastic methods are designed to measure, guide, and assist further volitional muscle action to the point where the patient may be entrusted with his physical destiny. Cardiovascular cases are advanced in compensation, through graded work with a maintenance of respiratory balance. Orthopedic patients are taught the use of synergists in reestablishing coordination. Resistive exercises, to develop power, and educational movements, to foster control of muscles redeemed from paralysis, fit the disabled soldiers to resume their previous tasks, or else to sense the fields of physical endeavor open to them.

Pronated (flat) feet will be a natural sequence in convalescents from sciatic paralysis. Weight-bearing will be premature. We are making every effort to impress both the actual and potential victims of pes planus that prophylaxis lies in mechanical prevention of overstretching the tibiales anterior and posterior, and that cure depends upon the restoration of tone and power of those muscles.

The use of the Zander machines has no advantage over the many ingenious devices that have been fashioned, for the exercise of joint action, out of wheels, spade-handles, rollers, springs, and what not. Flexion and extension, rotation, and adduction and abduction can be as well produced without complicated apparatus and with far-greater economy in outlay, space, and utility.

We, at Fort Sheridan, are in accord with Mayer, of Germany, and Jones, of England, in the contention that limited joint movement can be as effectually increased in the performance of workshop-occupation selected with a view to its curative value and with fargreater zest in the task that is engaging the patient's attention while effecting the cure, as is accomplished by means of mechanical aids in mechanotherapy.

It is a positive advantage at this stage of treatment that the wide range of useful and interesting occupations in the curative workshop of the Educational Department can be substituted for the monotony of hospital routine. It is a simple matter for the surgeon to indicate the joints to be exercised and the character of the movement as a guide to the educator in making the assignment.

Bane of Hospitalization

"Hospitalization" is a bugbear. The morale of the patient and of the institution depends upon the reduction to a minimum of the hospital-atmosphere. Treatment in physiotherapy, as in the operating-room and the ward, calls the attention of the patient to his injury and incapacity. To substitute, for stilted movements, the same or similar actions in toy-making, linotyping, or woodcarving, is, to foster cooperation by the patient, impress him with his independence and restore his confidence in himself.

The result of the experience in the late poliomyelitis-epidemic made it plain that upon the care the limb received depends the prognosis, and this, unquestionably, is true of the great number of peripheral nerve injuries in this hospital. There has been considerable variance in immobilization and posture of parts. Splints that had been applied were, in some cases, removed later. Close questioning brought out the fact that many patients cast them overboard when on the transport. Atrophies have not always been commensurate with the nerve injury. This apparent discrepancy in trophic change supports the contention that the maintenance of proper equilibrium of musculature, to prevent overstretching of paralyzed muscles until the measures of physical reconstruction can be brought to bear, spells the differ-

ence between partial and complete recovery of muscle-tone.

Hydrotherapeutic Methods

Hydrotherapy is not at the bar of professional opinion. The use of water externally, quite apart from cleanliness, is as old as medical art itself. As an antipyretic, its claims are second to none; the tonic effect of sea-bathing may be owing to the salt, but, is much more likely to be caused by the lashing of the surf; the hot foot-bath may convey heat, cold or mustard, but, the water is the vehicle. Let hydrotherapy, then, be the means of conveying to the body the impressions of heat, cold or flagellation. By no other means, can uniform temperatures of exact degree be maintained, promptly contrasted or hurled at the body-surface. And it is with these ends in view and the influences upon the system produced thereby, that hydrotherapy has its part in physical reconstruction.

The appliances with which the hospital is equipped for carrying out the treatments embodying these principles consist of incandescent-light bath-cabinets, to accommodate the individual, with the exception of the head (the hydrotherapeutic element of the cabinet-bath is the ingestion of copious draughts of cold water, to aid elimination, and the application of ice-cloths to the head, to prevent cerebral congestion); Baruch control-table, in accordance with which the operator manipulates the various types of douche—shower, circular needle, and Scotch; tubs for arm-contrast bath; also, sitz- and whirlpool-baths.

The limits of this paper do not admit of more than passing comment upon the special value of the various treatments. Suffice it to say, in general, that the cabinet-bath followed by the needle- and the shower-bath is used, for elimination, in arthritis and muscular rheumatism. The arm-contrast has two bowls, one of which contains water at 100 to 110° F. in which the arm is kept immersed for about three minutes. A sudden plunge into the other bowl at 70° to 75° F., with an immersion of one-half to one minute, restores, by alternation, the circulation in cold, blue, and edematous arms. The Scotch douche employs the same principle of contrast of temperatures (or impact, if you will) from the hose at a distance of twenty feet. Pressure and temperature are never both changed at the same treatment. Rest in the recumbent position is desirable after the general bath and the stimulating Scotch douche. The rest-room adjoins the hydrotherapy-room in a corner of the department.

Our experience with the whirlpool-bath has been limited by the fact that the equipment has not been hitherto available. We have tested the principle on refractory joints, with control-cases in which massage alone was given, and, we are convinced that the claims for it attributed to Souttar and Twining are reasonable. They state (*Brit. Jour. Surg.*, 1918, 6, 279) that "the chief effects of the bath are, a great increase in vascularity and a remarkable softening of the tissues, with the result that massage is greatly facilitated and much time and labor are saved.

Inradiation

For the local application of heat, it is important to differentiate between convected and radiant heat. There is no penetration of heat from the bath, pack or other surface application. The x-ray, the *N* ray, and the solar spectrum in their relative power of penetration exercise specific influences upon pathological conditions. Radiant heat from the electric light possesses the therapeutic value of sunlight, with the exception of the ultra-violet rays. The white light confined by a reflector maintains a steady and even radiation and stimulates underlying as well as surface tissues, increasing metabolism and reestablishing a normal physical status. Indolent wounds have sprung into granulation under its influence; increased resorption of transuded fluid, with diminished passive congestion, has been produced, in chronic arthritis, by local application, to a degree not attained by dry or moist heat apart from the light.

Pronounced analgesic effects attend the use of the cobalt-globe in neuritis and tender wounds, under exposures of from fifteen to twenty minutes. Following application of his length, fulguration of moles and small benign growths has been accomplished without causing pain.

It is of the utmost importance to determine, if possible, whether operative interference must be employed in the continuity of nerve in paralysis from gunshot wound. The *prima facia* evidence of paralysis or anesthesia does not make nerve suture mandatory. On the contrary, a large proportion eventuate in spontaneous return

without resort to surgery. To make the differential diagnosis between the "reaction of degeneration" from complete severance and incarceration in scar-tissue, after a reasonable time has elapsed and physiotherapeutic measures been employed, is not as simple as it may appear. Electrical response at the motor points usually is illuminating, if not thoroughly diagnostic. Electromuscular testing still is in the making. One officer of the physiotherapy department makes all the tests. This eliminates the elements of personal equation in pressure of the electrode, the posture of the muscle to be tested in repose and standardizing of quality of select reaction and detection of the true motor points. The observations based on 302 examinations up to July 1 are:

Results of Observations

1. Conductivity of normal nerve supplying muscle is indicated by contraction of muscle when electrode carrying faradic current is applied to motor-point of muscle.

2. Stimulation as above will not cause contraction of muscle if nerve supplying such muscle is degenerated.

3. Muscle supplied by degenerated nerve will contract when stimulated by galvanic current. The electrode need not be placed directly over the motor-point.

4. In muscle with normal nerve supply, kathode-closing contraction is greater than anode-closing contraction.

5. That statement that, in muscle showing reaction of degeneration, anode-closing contraction is greater than kathode-closing contraction, is not correct.

6. In muscles that have been completly paralyzed and in which there is a return of volitional movement, it is not always possible to get a response from faradism.

7. The statement, that a muscle that will respond to faradism will respond to 0.09 microfarad (condenser-current), is not always true.

8. A muscle that will not respond when 0.09 microfarad condenser-current is applied to motor-point shows some interruption of conductivity of nerve supplying it.

9. The current discharged by the condenser can be accurately measured and standardized and is dependable for all practical purposes in muscle testing.

10. In cases showing reaction of degeneration, unless it is evident that nerve supply is severed, operation should be deferred, in order to give opportunity for spontaneous regeneration.

Physical Therapeutics Made Good

It remained for the Government to set its seal of approval upon physiotherapeutic modalities and give them the recognition to which, under ethical management, they are entitled. By right of rational thought, by right of principle, they have a place that no other measures can challenge; now, by right of accomplishment in a hundred thousand cases of war-illness and injury alone, they have won their place in the regular curricula of medical pursuits. There is nothing new about any of them, but there might as well be, for all the medical profession in general has recognized their claim to medical confidence. Some few doctors have established a reputation and a clientele in electrotherapeutics and hydrotherapeutics; universities have labored for years to stamp with vigorous manhood the youth that comes to them for instruction, and have fought for a recognition of physical education; but, the vast majority of medical men have stood aloof. None of all of these agencies is a panacea; they are not the children or property of any school or "ism;" they are applied physics.

What shall be said of the practitioner that finds himself unable to reply to the question of the convalesced soldier on the distribution of the musculospiral nerve? The soldier-patient has become versed in the innervation of muscles. Of symptoms, he, in the language of Robin Hood, "knew it was a green leaf; but, of what manner of tree, he wotted not." Medical terminology, treatment, and technic slip easily and familiarly from his tongue. And his name is legion. On the economic side, therefore, there is ample reason for knowing physical therapy.

The Medical Department of the Government has, in the past two years, established itself as the clearing-house of medical and surgical research. Reinforced by the best in skill and devotion, the medical profession had to give, it has outstripped in achievement the notable accomplishments of all time. With its broad sympathy for all investigation, with its command of the sources of information, and with its machinery for propagating medical progress, it is not too much to hope that medicine will be provided for in the national budgets for future wars against wrong living, disease, and death.

Where the Cross Roads Meet

Dental Radiology, and Obscure Infections

By FRED S. O'HARA, M. D., Lieut.-Col. M. R. C., Springfield, Illinois

EDITORIAL COMMENT.—The problem in focal infection, as it is localized in the gums, is of so great importance and so generally recognized that Colonel O'Hara's contribution will be welcome as a means to fix the salient points more promptly in our minds.

Colonel O'Hara begs of us that we apologize for the appearance of the dental halftones. It is a matter of impossibility to bring out the excellent details that were in the original films submitted with the article.

OF exceeding importance was the position of the liaison-officer "over there". Over here, the connecting link between the physician and the dentist is analogous to that of the officer just mentioned and is filled only by the rœntgenologist.

In those good old days (now visible only through the dust that we have raised by our high-powered thinking-apparatus as it sped down the highway of years), "rheumatiz" and "neuralgy" were carefully and patiently treated, through years of time, with powder, pill, and potion. "Yarbs" were brewed *ad nauseam;* porous-plaster emporiums worked over-time, to fill the demand; and wintergreen-trees sobbed away their innocent lives in the knowledge that they would be early called upon to fill the emptiness in the gaultheria-receptacles.

The doctor that could introduce the greatest number of ingredients in one bottleful of dope was the commander in the antirheumatic phalanx, and all sought that famous prescription wherein could be tasted everything from stewed onions to broiled rubber sheeting. Children had seven kinds of hell whipped out of them to cure the "growing-pains", under the impression, evidently, that counter-irritation was worth its weight in porter-house steaks.

A Prophecy of a New Order

Strange to relate, when grandma bade farewell to the last of her snaggy teeth and assumed the role of chief engineer to a full complement of artificial teeth, her "rheumatiz" left her, she improved in condition; in fact, gained in weight and strength to such extent that she once more could bring in the coal and the kindling.

When the maid of all work visited the dentist because of toothache, she came home spitting blood, but, that was all. One by one, the decayed teeth left their moorings, and her smile became that of the family-watchdog through a picket fence. Later on, she made the final visit to the dentist and shed the remainder of her grinders; appearing soon after with a temporary plate which, in turn (after the bone had filled in), yielded place to a permanent artificial denture. Then all her troubles were over, unless she married the town-sot or tied up with a four-plus Wassermann clad in trousers or a walking representative of Neisser's favorite plaything.

This little attempt at levity brings us to facts, hard, iron facts. Each year brings a new fad in medicine (and dentistry). Sometimes a thing to be promptly discarded, after having been tried in the balance, and at other times a something that shows a rift in the clouds that obscure the *ultima Thule* of medical and dental ambition.

My earliest recollection of dentistry was, the rule to extract any tooth that ached. My father was an excellent dentist, yet, despite my early training along dental lines, I hopped the dividing fence and cast my lot with the medical fraternity; "not, that I loved Cæsar less, but, that I loved Rome more". I well remember the lame, the halt, and the (almost) blind coming into my father's office and departing, minus a multitude of snags and roots. I have seen the same patients come back for artificial teeth, improved in appearance and having gained in weight, despite the fact that, during the interim, they had been upon a soft diet that could be disposed of by unarmed gums. And, with subsequent mastery of the art of mastication by means of artificial teeth, said patients bloomed afresh into ruddy health. Why?

Abscessed Teeth, and Chronic Ailments

Far too lengthy for the contribution that I purpose to limit to less than a folio would

be the discussion of body-infections from decayed (abscessed) teeth. Consider the decay that causes an inflamed and, later, a dead and decaying nerve; and, owing to the plug of foodstuffs that effectually blocks all drainage through the crown of the tooth, the pus finds outlet through the apex of the root of the tooth, and there, in the spongy bone, it thrives and founds a numberless family, which may show a danger-signal by a "gum-boil", but, not in-

Fig. 1. This "nervous" woman has an abscess in a tooth with a gold filling. Nerve died as a result to the "pecking" of the gold foil into the tooth.

frequently, exhibits itself in the form of arthritis, appendicitis, endo- or pericarditis, cholecystitis and many other forms of "itis." That such things have happened, even the most conservative will admit.

And now comes the danger-line. Let him that is without error among you cast the first stone. It is here that sages will disagree. Shall the dentist endeavor to sterilize the root and save the tooth or, should the tooth be extracted at once? *Quien Sabe?*

So, we must endeavor to penetrate

Fig. 2. A Not Unusual Aftermath to "Crowns."

further into the mysteries of the apex and the apical abscess. The radical dentist, by means of microscope-slides, shows that the abscessed cavity never heals completely; that a tooth in which the nerves are dead is a foreign body in the alveoli and should be removed, as becomes a foreign body. The ultraconservative dentist assures us that "thousands of these teeth have given no trouble and that crown- and bridge-

From the same patient as Fig. 2.

work are far better than clacking porcelain".

But, while I have your undivided attention, I will state that even the ultraconservative dentist, when ordering dental x-ray work, invariably (unless all teeth are to be rayed) calls attention to all crowns and bridge abutments, and desires that they be given careful attention. And there begin the troubles of the rœntgen-ray-specialist.

Uncertainties of Interpretation of Skiagrams

How can I prove that there is an active abscess under a given tooth? The answer

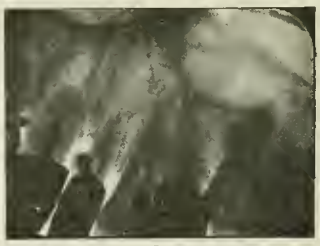

Fig. 3. Rheumatism.

is delightfully short. "I CAN'T"—that is, without the assistance of a few questions and some common sense. Unfortunately, the necromancer that works the jigger that makes the x-rays come out of the little opening is supposed to be many things that he *is NOT*. Among these things, are the roles of fortune-teller and prophet of the future. *But*—given a case wherein a "gum-boil" has caused the patient to seek dental consolation and said dentist sending the subject for a skiagram and then, when the film has been introduced into

the mouth, back of the "gum-boil", showing an apical abscess; this, plus a history that the tooth "feels longer than the rest," is a fair indication of active trouble.

Were one of the readers to sit upon a 12-inch high-explosive shell and peck at the percussion-end until the shell exploded, he, too, would be convinced that the shell was active.

Fig. 4. Note the anterior "abutment" for the bridge. Probably one hundred dollars wasted besides the danger from absorption.

A man can ponder at the edge of a shell-hole and say, "A shell exploded there". If grass is growing in the cavity, he can be reasonably sure that the explosion was not a recent one. But, in any event, he can not be sure that there are no fragments of shell left buried in the crater. So with the tooth-abscess. Maybe it is ancient, perhaps fairly recent, but, we have not the knowledge whether or not

Same as Fig. 4.

the justly famous streptococcus viridans has occupied apartments in the alveoli. Most of the investigations show that Mr. and Mrs. S. Viridans are there and at home all the time.

Hence, we have a camp of physicians and dentists that say: "If it aches, have it out; if it has ached, have it out". And, we can not give a much safer answer.

It were useless for me to describe a rheumatic wrist in full bloom subsiding coincidentally with the removal of an ab-

Fig. 5. This bicuspid shows no cavity nor decay. Yet it is abscessed and its possessor was "rheumatic."

scessed cuspid tooth. Please, take my word for it. It were supererogation for me to state that, in all the years that I have been radiographing teeth, I never have failed to find apical abscesses in every case of "rheumatism" brought me for skiagrams of the teeth.

Let us agree that far too much is expected immediately after the removal of

Fig. 6. He "kicked" because the dentist would not work upon the teeth without an x-film. Note the enormous abscess.

teeth found guilty. Were the sockets curetted or did the dentist allow the involved area to be sealed in by process of nature? In extreme instances, the deposit of the "deformans" is so great that it never can be wholly resorbed. This is our misfortune rather than our fault. The percentage of recoveries is high, much higher than before the "take the picture of my teeth" became the slogan of our rheumatics.

In these days of progress, when our advance-guards are so close upon the

haunches of the enemy that our guards can count the hobnails upon said enemy's shoes, a mistake in diagnosis may be the cause of failure when dental films are called to account. I have seen a neuritis (following the influenza of recent months) so simulating the old and familiar "sciatica" that the first thought was, to radiograph the teeth of the sufferer. But, when he took them into his hands and passed them to the doctor, with a friendly "Go as far as you like, but, do not break them", the doctor wisely began to

Fig. 7. Diagnosed MUMPS but swelling persisted Patient came to me for x-ray of HEAD. I first examined teeth and found the trouble without raying skull.

search for other possible avenues of infection.

Always Have the Teeth Radiographed

It is possible to theorize until the bottomless pit is transformed into a skating-park and, yet, not reach facts. As I see the rift of light through the clouds it reads like this: "the teeth are responsible for a multitude of ailments. It is never supererogation to have them examined, although, many times, the seat of trouble will be found elsewhere.

Do not expect everything of your dentist. He will help wonderfully; still, he is not infallible. The work of dental radiography is new, so new that we do not fully comprehend everything that we see upon the plates.

In interpreting films, two things are misleading. The anterior palatine canal, if the angle of raying is not perfect, may simulate an abscess under either of the upper central teeth. Also, the shadow of the inferior mental foramen may cause like confusion, by overlying a bicuspid.

Make friends with the rœntgenologist, and do not be superior to asking him for his opinion and interpretation. (Note, kindly, that I am not speaking of the mechanical "laboratory-man", who is only a technician and who is without medical education.) The rœntgenologist sees hundreds of films where you see one. "Practice makes perfect."

In conclusion, just think back to the days when artificial teeth were the rule, and go over those cases that were rheumatic, and try to recall the condition of the teeth in such cases. Mouths full of snags? Sure! How well you remember the Roquefort-cheese breath and the tongue that required an acid bath to tell whether it was coated or plated. Yet some of the advanced thinkers of those days smelled the mouse that we have visualized, but, most of them thought that the bacteria of decay were ground into the food and hence, affected the digestive organs alone. They did not dream that

Empiricism Ahead of Science

mastication was pumping a myriad of germs from the apices of the teeth into the blood-stream.

Empiricism Ahead of Science

I well remember my father (a dentist), twenty years ago, refusing to install bridge-work; offering as his reason the conviction that bridge-work was unsanitary, citing his experiences in removing bridges and extracting the "abutments", with a notable improvement in the health of the patients. Bringing the theme down to date, recently, a dentist in discussing the matter with me, remarked "Your dad was twenty years ahead of his time. How we laughed at his cranky ideas then, but, we know now that he was right."

Readers, most of you will see the disappearance of bridge-work and the final obsequies of the porcelain and gold crowns mounted upon dead teeth.

Prophylaxis? Sure! Write this in letters of fire. "DON'T LET YOUR TEETH ACHE." Give the same advice to your patients.

On Cancerous Obstruction of the Rectum

By CHARLES J. DRUECK, M. D., Chicago, Illinois

CANCER of the rectum is variable in its obstructive symptoms; sometimes advanced scirrhous cancer that has narrowed the lumen of the gut until it hardly admits the end of the finger will cause little or no obstruction. Not infrequently the passage of feces is never much interfered with, because ulceration begins early and the growth sloughs off enough to keep the passage open. When obstruction exists and is located in the lower rectum or at the anus, the feces are ribbon-like in shape or form small pea-like balls, or else the frequent efforts at defecation bring away only small amounts of feces mixed with mucopus. This form of obstruction, when present, is, clinically, similar to that of simple stricture and not in any way pathognomonic of cancer. The patient's history does not differentiate the disease and everything depends upon a physical examination, which calls for great care and delicacy.

Cancer in this region is of rapid growth and, if a patient asserts that the stricture has existed for many years, it evidently is not malignant, although it must be remembered that carcinoma may be grafted upon any growth or ulceration that was, originally, benign.

If it is encephaloid cancer, the passage of the feces is not so frequently interfered with, because ulceration begins early and the growth sloughs away enough to keep the passage open. Blood, mucus, and pus mixed with the feces suggest dysentery rather than the real malady (Fig. 2). Ulceration into the surrounding tissues permits the extravasation of feces and often a large dissecting abscess and fistula.

Differential Diagnosis

Digital examination is of great value in all rectal strictures, while, in the case of cancer, it is absolutely necessary, because here a diagnosis often can be made by this procedure alone.

Cancer of the rectum is but rarely located solely on the anterior wall of the rectum, the ulceration usually spreading around to the lateral walls. The tumor generally forms a raised patch. The finger-tip bumps against the lower edge, and the induration of the base produces a decidedly characteristic sensation. The finger can feel whether there is a crater-like depression. Almost always the slightest touch is extremely painful and exaggerates the tenesmus present. The finger, when removed, is covered with purulent matter and some blood, when the cancer is ulcerating. A short finger may not

Fig. 2. Cancer of Sigmoid.

reach a cancer located high up; however, by pulling down the anal sphincter, and pushing in the suprapubic region, if the patient is thin, the lower limit of the growth may be reached. Perhaps, a hard nodular mass will be disclosed, one that involves only one side of the rectum, while the other side is covered with normal mucous membrane; or the mass may encompass the rectum, leaving only a small opening in the middle (Fig. 3). Its peculiar character, as disclosed by palpation, namely, the hard, rough, irregular mass projecting into the rectum, easily differentiates it from simple stricture, which latter is smooth, or from a tuberculous

stricture, which undermines the surrounding areas.

Scirrhus

The commonest form of cancer in the rectum is the scirrhus (Fig. 3). This usually occurs just above the internal sphincter or in the ampulla of the rectum. It begins more frequently on the anterior wall of the rectum, although it may occur elsewhere. It starts as a hard nodular mass and extends circularly until it involves the rectum all around, leaving only a small opening in the middle. The latter condition is the usual one found when the physician is consulted. Mickulicz found three-fourths of his cases progressed to this stage. Gussenbauer estimates that 65 percent of all rectal cancers are of this variety. These cancers grow lengthwise of the gut but very slowly and rarely involve more than two inches.

Fig. 3. Scirrhous cancer of rectum—arrows point to annular construction—Dense infiltration shown by sharply outlined filling defect.

Encephaloid Cancer

The encephaloid cancer occurs as a soft polypoid mass very like a benign adenoma, but, has a broad base that pervades the submucous tissue. This variety constitutes 15 percent of the rectal cancers. They break down very early and, with few exceptions, have reached this ulcerative stage by the time they are seen by the physician. Palpation suggests a feeling as if irregular masses had been broken off roughly. Raised edges surround the ulcer and give it its crater-like appearance. The well-anointed finger, when inserted, feels this rough, irregular edge all around the constriction and then suddenly passes into a wider channel above where frequently masses of hardened feces are found. Exceptionally, a softer polypoid mass is found.

Every possible care must be exercised in passing the finger through the obstruction where it surrounds the rectum, especially if near the peritoneal surfaces, for fear of tearing through the friable wall and entering the abdominal cavity. The necrosis may leave a very thin partition at some one point or the ulceration in the gut above the obstruction may be very deep. The finger must never be pushed hurriedly through a carcinomatous stricture, and even soft bougies must be managed with great caution. Rupture and sudden death have resulted from carelessness in making such an examination.

Fig. 4. Firm Obstruction of Bowel Causing Rectum to Dilate with Enema.

Cancers high in the rectum and in the sigmoid colon are the most difficult to diagnose and have repeatedly been mistaken for a diseased ovary, salpingitis or other pelvic tumor (Fig. 4). The rectoscope is valuable; but, even this instrument does not always inform us as to the

upward extent of the neoplasm, its depth, and the extent of the sloughing; hence, a thorough roentgen-examination is indispensable. A proctoscopic examination so excites the rectal mucosa that a patient may have difficulty in retaining an enema during the next several hours; consequently, a roentgen-examination should not be attempted within twenty-four hours after the use of the proctoscope.

Preparing the Patient

The preparation of the patient consists in emptying the colon, by giving an ounce of castor-oil on the evening before the examination and a cleansing enema shortly before the examination.

A roentgen-examination for carcinoma of

Fig. 1. Normal rectum—arrows point to incisures between curves and saculations—note tapering of rectum toward anus.

the terminal gut, as made by an expert, presents very definitely and distinctly the filling, with the barium mixture, of the defects discovered. The patient should be examined with the screen, and x-ray negatives should also be taken, in order to determine accurately the condition and location of the lesion. By such a carefully interpreted x-ray examination, very few cancers of the pelvic bowel can escape diagnosis, while, at the same time, undue importance will not be given trivial deviations from the normal.

The pelvic bowel may be examined after a barium meal by mouth or as given per enema, or both. The clyster is the more frequently used and, in the study of obstruction of the bowel, the clinician will gain valuable evidence when watching the inflowing enema. The patient lies on his back on the screen-table and the opaque mixture slowly fills the rectal ampulla. The sigmoid flexure and the rest of the colon fill irregularly; and, at this time, palpatory manipulation is employed. The patient's abdomen must be relaxed, his thighs being flexed, and he should breathe through his mouth. The tube and the screen may be shifted during the examination, so as the better to observe particular regions. Turning the patient by changing the angle of the ray also will help in the study of kinks and angulations.

There are wide variations in what must be considered pictures of the normal terminal gut, that is to say, where junction is normal and there is no visual lesion (Fig. 1) in the normal rectum. The descending colon usually narrows somewhat at the sigmoid flexure and expands again at the ampulla, then tapers toward the anus.

The most important sign of the x-ray picture of the pelvic bowel is the filling

Fig. 5. Advanced Ulcerating Cancer of Rectum—Arrows Indicate Constrictions.

in of defects in the contour of the bowel, because such change from the normal outline may be owing to spasm of the colon, to feces, intestinal gas, adhesions, extrinsic pressure on the intestine or tumor growth. In cancer, this irregularity may be sharply outlined or indefinately shaded.

In the colon, obstruction other than cancerous is very rare. The filling defect shows the proximal limits of the disease. This deformity of the outline of the intestine may show a concentric local narrow-

ing of the lumen or it may be limited to one side. Even after a tumor has been found, we have to differentiate diverticulitis, tuberculosis, actinomycosis, syphilis, and benign tumors within the colon. Spastic contractures of the sigmoid colon show as small irregular haustra.

The following case-reports will help to explain the attached pictures:

Case-Reports

Figure 2. Case 1. About one year ago, the patient began to suffer pain in the pelvis and rectum and to bleed from the anus. Later, he was operated upon for hemorrhoids, but, without getting relief. He admitted losing some weight, but, thought that might be because of his worrying and his disturbed digestion. Combined digital examination disclosed a

Fig. 6. Cancer of the Lower Rectum.

large mass in the pelvis. An x-ray photo (Fig. 2) shows cancerous involvement of the entire sigmoid colon.

Figure 3. Case 2. The patient, a woman. noticed constipation coming on about two years ago. Has lost 70 pounds in weight. Has no pain, but, rather, a heavy, bearing-down feeling in the left pelvis. Has to keep the bowel contents liquid so as to have evacuations. Has a yellow fecal discharge from the vagina. Examination discloses a large mass in the pelvis and a rectovaginal fistula at the site of the growth. The fistula will admit a thin pencil. Semisolid feces are being forced out during the examination. The x-ray photo (Fig. 3) reveals a marked annular constriction of rectum.

Fig. 4. Case 3. Inoperable cancer of the rectum with almost complete obstruction of the rectum. Six months previously, the patient experienced difficulty in having bowel movements. Cathartics caused colic and a feeling of soreness and obstruction in the pelvis. "The stool does not seem to be able to get out." The patient was having obstruction-symptoms at the time of this examination. Laparotomy was performed and the rectum was found well matted down to everything. Colotomy through the left rectus was performed, using that muscle as a sphincter for the newly formed anus.

Fig. 5. Case 4. About a year ago, the woman noticed a protrusion at the anus (said to have been a hemorrhoid) which disappeared under treatment by her physician. For the last six months, she has lost blood from the anus. Has lost 37 pounds, and has had no formed feces for the past two months. She has liquid stools by taking epsom salt.

Inspection of the anus reveals nothing. Making a digital examination, the finger meets, 1½ inches up within the rectum, a firm and hard resistance, through which there is a very small passage. The finger can not be introduced. Vaginally, the tumor is found fixed to the uterus. Bimanually, an index-finger in the rectum and a hand above the pubes, reveals a mass that almost fills the pelvis.

Fig. 5. Case 5. This shows the tumor with filling defects in the lower rectum, a widening at the ampulla and another almost complete stricture at the junction of the rectum and sigmoid colon.

Fig. 6. Case 6. For the past seven years, this patient has occasionally had pain in the rectum. Several months ago, he had a boil which ruptured and still is draining. At times, he has considerable pain in the rectum, while, at other times, he is free from pain. During examination, 1½ inches within the rectum, there is felt a firm nodular construction, which mats the structures together. An x-ray photo shows a stricture of the lower rectum.

After Thirty Years—XVI

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

Referendums and Representative Government

LINCOLN'S ideal, so aptly expressed in his Gettysburg address, of the government of the people, by the people, and for the people, is, unquestionably, the finest conception of the highest type of civilization ever put into words.

It will be the ideal government when it shall have been attained; but, it has not yet been attained anywhere in the world, so far as I know, except very imperfectly. Our Fourth-of-July orators try to give their hearers the impression that, in this republic, we have the only simon-pure exemplification of Lincoln's happy vision. We hope to have, some day— but, the time is not yet.

This trinity of the elements of good government has, as any trinity necessarily must have, three sides; and, in the working-out of the problem, one or more of these are liable to be neglected. Sometimes, government *of* the people breaks down: they are not governed, but are allowed to do as they please. Witness our strikes and labor-riots. Sometimes, it is government *by* the people that fails: only too often, especially in our great cities, we are governed, not by the people, but, by a small section of them, namely, the corrupt politicians. And the third element of the trinity fails perhaps oftener, than do the other two: we have government, not *for* the "people," but, for self-seeking politicians and the labor-unions, and for all sorts of selfish and sectional interests. The people simply foot the bills—and grumble; they are the goat, to use a slang expression.

The reason for all this lies in ignorance. A considerable proportion of our voters are ignorant, every demagog knows this. He knows, too, that, by cunning misrepresentation, it is easy to arouse the suspicion and prejudice of ignorant people. And, when these are suspicious, they are easily led and misled. Many politicians are demagogs, and in this lies the source of their power. The ignorant voter is in their hands as wax. The result is, government that is anything but representative.

Another way in which government by the people sometimes is defeated is through the referendum; and this is all the more dangerous, because it has the appearance of being actual government by the people. It has been said that Satan is most dangerous when he appears disguised as an angel of light. At this writing, certain United States senators are endeavoring to bring about a nation-wide referendum on the question of the proposed league of nations. Could any proposition be more puerile? Here is a question deep enough and difficult enough to call for the best thought of the most intelligent citizens; so, says the demagog, let us leave its decision to the most ignorant, to those who know least about it. He knows very well that the proposition to do this will look plausible to the ignorant and the unthinking, and he trusts to misrepresentation to arouse their prejudices, so that he may lead them to do his will. People that are inclined to approve the referendum will find food for thought in the reply given by Secretary of Labor Wilson of President Wilson's cabinet to those labor-leaders that sought his approval for a nation-wide strike for the purpose of securing a new trial for Mooney, convicted in the San Francisco bomb-throwing case. Said the Secretary: "For organized labor, to participate in such a strike, would simply mean that labor was trying Mooney without the benefit of evidence. Very few of us are familiar with all the evidence, yet every workingman is asked (by the proponents of the strike) to constitute himself a juror. Justice can not be obtained in that way."

Such an utterance, coming from such a source, is all the more gratifying, because the spokesmen of organized labor have not always shown such a breadth of view and clear foresight in their advice to their followers. The words here quoted would require very little alteration to make them apply admirably to the plan

of Senator Borah and his followers, to have the league of nations passed upon by a referendum. Very few of the voters of the United States are familiar with the evidence for or against a league of nations, and, yet, every voter is asked by the proponents of a referendum to make himself a juror. If the well-informed and intelligent can not decide, how shall the ignorant and unread do so?

How This Applies to Medical Practice

Lest the reader wonder why I am discussing a political question in a medical periodical, let me hasten to explain that I am leading up to a matter in which every doctor is or should be profoundly interested. And that is the fact that, so far as the passing of laws relating to the practice of medicine is concerned, we do not enjoy as much as we are entitled to the blessings and benefits of representative government. Laws are being passed to which the profession is obliged to submit, and, yet, the rank and file—the great body of general practitioners, have little or no opportunity of making their wishes felt in the drawing up of those laws. When the Harrison antinarcotic law was passed, how many general practitioners knew anything about it until they were called upon to obey it? True, the legislators will tell you that representatives of the medical profession are always permitted to present their views upon proposed legislation.

But, the trouble is, that these medical representatives are not really representative. They do not represent the bulk of the profession. They are, as a rule, either doctors holding political appointments, or else delegates from some medical society. Naturally, their views and interests differ somewhat, and very often a good deal, from the views and interests of the mass of the profession. A doctor with an extensive private practice, that is to say, a doctor with a broad experience, will not give up his practice to take a political appointment, because political appointments are rewards for party service, and, for that reason, not permanent. So, when a doctor who holds such a position gets to the end of it, he finds his practice scattered and himself compelled to begin all over again. For this reason, doctors holding political appointments seldom are representatives of the profession in general, and their views on proposed legislation would differ accordingly. I am not questioning their ability or sincerity; I am simply calling attention to the fact that their point of view would not be the same as that of men who do the bulk of the work in treating the sick.

The same objection holds with reference to the delegates from medical societies, when they play the role of advisers to legislative committees on proposed legislation. Most medical societies are controlled by a "camera" (which, in common parlance, is called a "ring"). These men ordinarily are specialists, because the general practitioner is too busy or has too little leisure to spend much time in attending society meetings. The specialist is not interested in quite the same problems as is the man in general practice, while, sometimes, his views on proposed laws are completely at variance with the latter's convictions.

For example, attempts have been made in some states to pass laws prohibiting doctors from doing their own dispensing. The general practitioners, almost to a man, feel that such a law would be oppressive and unjust to the profession and not in the interest of the public. But, the attitude of the specialists has been one of indifference, and, in some instances, of active antagonism to the present custom of dispensing. The only remedy for this state of affairs is, for each man to act for himself. Doctors are rather isolated from their fellows, especially in country communities, and this fact militates greatly against effective united action by means of societies. Still, there is nothing to prevent every doctor from writing to his representatives in either state or national legislatures and expressing here his views directly upon any contemplated legislation. If a congressman were to receive a few hundred letters or telegrams from his constituents on any proposed law, he would have a far better idea of the state of public opinion than if he merely listened to the arguments of this health-commissioner or that secretary of a medical society, no matter how well these may be prepared

The attempts to prevent physicians from dispensing their own medicines will, no doubt, be renewed, and every member of the profession should be on the lookout and ready to do his part in defeating the scheme.

The Harrison law has been amended, and it was done so quietly that thousands of doctors had their first intimation of it

when they were called upon to pay a three-dollar tax instead of one dollar, as formerly.

Shall Opium Be Proscribed?

"There is good reason to believe that the attempt will be made to get congress to pass a law that will deprive the medical profession of one of its most valuable remedies, or rather two of them; for, it is sought to prohibit the importation, manufacture, and sale of every form and derivative of opium and cocaine. If the attempt is made, we may be sure that it will be done as quietly as possible, *and that no effort will be made to ascertain whether the great mass of the profession want such a law or not.*

So, it behooves us to be watchful, not alone for this attempt, but, for others that are likely to be made. *We must make our influence felt.* It is simply a question of every man doing his duty.

The interdiction of opium and cocaine is too large and important a question to be adequately discussed at the tail end of this article. A good many doctors, when the subject is mentioned, are disposed to treat the matter lightly. They say: "Surely, no one will ever attempt such an absurd thing." It does seem incredible that such a thing should be seriously proposed. Yet, we must not lull ourselves into a false sense of security, on the ground that the thing is absurd. A good many absurd laws have been enacted before now, and a lot more will be.

Watchfulness is our only security. It may be trite to say that eternal vigilance is the price of liberty, nevertheless, it is sadly, profoundly true. If we must fight for the liberty to relieve human suffering in the way that experience teaches us to be best, then let us not lose the fight in advance by an ill-founded confidence, that "the thing is too absurd to be true." Is anything too absurd to be attempted by our modern reformers?

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Experiences of a "Rookie" Officer

By LIEUT. G. H. CONN, D. V. M., Auxiliary Remount Depot No. 318, Camp Sherman, Ohio

[*Continued from July number, page 493.*]

The First Night in Camp

THE room that I was to occupy was about 10 by 12 feet, with one window and, of course, a door. The furniture consisted of a bare steel cot, a table, and one chair. The only other furnishings consisted of two galvanized buckets, neither mattress nor blankets could be purchased at the camp, nor were they loaned; so, for the first few nights I slept on two blankets, that, fortunately, I had brought with me, while for a cover I used a pair of light bed-blankets, and, after doubling them, I placed a few layers of newspaper between them. I managed to keep fairly comfortable.

I wish I could make you feel as I felt that first night at camp. I wish that you could just have the thoughts that one has during his first night in camp. I am sure that you would sympathize with the boys more than you do. Here I was away from home, but, even so, I always had been able to do anything that I wished by which to pass away the time and I could follow my own inclinations if they would give me any pleasure; here I was afraid to do anything, for fear that it would be contrary to the regulations.

After supper was over, I went to my room alone, for, I did not know a single one of the officers, and, while they all seemed very nice and friendly, still, I felt out of place with them, as they were so much more used to this military life than I. Everything here was so still; in fact, it was so quiet around that, to one who had lived in a larger town or small city, it was painful. I stood at the window with my arms upon the sill, the light out, and I watched the moon as it rose over the hill to the east of the camp. It was the same moon that I had seen all my life, and, yet, it seemed to take on a new significance to me. The lights about the camp looked like stars shining in the heav-

ens. As I recall it now, every event in my whole life came back to me that night. I remembered my early school-days and how carefree and happy I was then. I could see the same kids that I went to school with and each little childish prank that we played. I remembered each teacher and every punishment I ever received. My highschool days came back to me and, with them, a recollection of happy, joyous times, of the many school-chums of mine. The college-days were also flitting through my mind, and not a few were the pleasant memories that I recalled. But, most of all, I recalled my home-life with my folks; how little I had appreciated the kindness of my parents and the great sacrifices they had made for me.

This army-life is making millions of boys appreciate their parents and their homes, and those that return will, surely, make more out of their home-life than they ever would have done otherwise. The thought of all the comforts and conveniences that I had left and a mental comparison of them with those that I should, necessarily, have in my new life was very discouraging, indeed. If there ever is a time in a man's life when he feels that the world is out of sorts and that he has not a friend on earth, his first night in camp must be that time. Out of the stillness of the night, sounded the shrill blasts of a bugle, and I learned that this was the time to put out all the lights in your room and retire.

I had been standing there for more than an hour wondering what would be next. I was not tired and there had been so much excitement and I had received so many shocks during the past two days that I could not sleep. I sat upon the edge of my cot, and all was still and dark. I sat there a long time, but, finally I grew chilly and, so, lay down again; after awhile, I dropped off to sleep, I awoke with a start at the first note of the bugle calling us to get up; but, oh, how tired and sleepy I felt now; I wished then that the night had only just begun, rather than another day.

It was not long until I heard the words, "Come and get it," and, from the scrambling and running down the hall toward the dining-room, I decided that they were going to get something, all right. This is the common phrase used in calling the men to their meals; but, as you know, in the army, they call it mess instead of meal. I do not remember now what they had that first breakfast, I do know, though, that the things that we had were not what I had been used to in civil life, neither were they served in the manner that we were accustomed to, and, so, my appetite was easily satisfied. It was not long, however, before I found that my appetite was getting better and that, while the food was not prepared or served as I had been used to, it was very wholesome and would satisfy a hungry stomach and give you enough strength to do the hardest work.

The Tribulations of a Greenhorn

I had now been located all right; still, just for the time being, there was nothing for me to do but to report at quarters for my meals; and, so, I took long walks about the camp. As I said before, I knew nothing at all about military affairs and less about military courtesy, thus, I was going about the camp saluting all of the men that I saw, whether they saluted me first or not. One time, as I was out walking with one of the other officers, I noticed that he never saluted until they saluted him first, unless they happened to be officers that ranked above him. You can imagine how awkward I felt from all the mistakes that I had made.

It is surprising how readily a bunch of soldiers of some little experience can detect a new officer from an old one of some experience. I did begin to get a little courage after listening to the officers talk one evening about all the things that had happened to them in their early military life and the things that they had seen other green officers doing; so, I began to think that, some time, I yet might come to be an officer.

Things went along very smoothly for three or four days and I had begun to think that I would soon get to be a real soldier, when along came the calm that took all the wind out of my sails. I was sitting in the office reading a paper and, when the commanding officer came in, I just sat there reading as though that were the proper thing to do. The colonel started to ask me some questions, and I still sat there and had not even taken off my hat. He stopped talking long enough to say to me: "Don't you know that your are supposed to stand at attention and remove your hat when I am talking to you? You must use a little more judgment and keep

your eyes open, if you are ever to succeed as an officer." Well, so far I have always remembered that and think I always shall.

I had been here almost two weeks and I was beginning to like it very much. I had begun to make plans of what I would do that winter. All the future looked rosy and there was not yet a single cloud to mar the horizon of my prospects, so, you can imagine that one of my biggest surprises came one afternoon as an order was handed to me directing me to report to Kansas City for duty. My wings were useless, my air-castles ruined, my hopes blighted, and my disposition was all but ruined.

A Ginger-Ale in Father Dearborn's Village

Orders are orders in the army, so, the next afternoon found me on my way to Kansas City; arriving the next morning in Chicago. I had never been in Chicago before, hence, you can well realize that I thought it some busy place. All is in such a hurry and traffic is so heavy that one finds difficulty in crossing the streets. As we had only about two hours to wait here, I hurried to the nearest restaurant and ate my breakfast as soon as I could, then went out to take a short walk from the station. I had met another officer who was going the same way as I and who was well acquainted with Chicago, and, after breakfast, he volunteered to show me around the vicinity of the station. We were going down the street when we came to a thirst-emporium with a typical log-cabin front, something as these cabins must look in the wild and woolly west and in logging- and in mining camps. My friend suggested that we go in and get a drink of ginger-ale.

I am not at all fond of ginger-ale; but, then, anything to be sociable, you know. I think they call this place, "Hinky Dink's" or something like that. The most peculiar and odd assortment of signs and old relics that I have ever seen were hung on all the walls. The ginger-ale was served in a small tin cup and I picked up the cup and emptied it most innocently and without any mishap. Then my friend suggested that we walk back through the room and look it over, however, I had taken but a few steps when something hit me on the head and my hat went rolling across the floor. My friend then wanted me to go up stairs with him; but, I began to get the drift of affairs, the whole thing being a collection of practical jokes. Thus, the bartender had intended to set my cup of ginger-ale on a nail strongly charged with electricity, but had missed it; or when one was almost up the stairs, they flapped, so that he fell prone and slid back to the bottom on his belly, and such like nonsense.

Returning to the station, we were soon on our way to our destination. This was a long, tiresome ride, but finally we arrived at about 9 o'clock in the evening. Being quite tired, I stopped at a little hotel near Union Station and, after making myself comfortable and getting my toilet completed, I "hit the hay," as we often say, and was soon asleep.

After breakfast next morning, I proceeded to the office where I was to report. There, I was told that I was to be sent out with an old army-officer, who was buying horses and mules, to get some experience and that I was to assist in any way that I could. This officer and his party, though, were not to be in for two or three days, so, all I had to do was to wait for them.

The following Friday night we left for Scott City, Kansas, to buy some horses and mules. I had heard and read of historic old Kansas and was not greatly surprised when I awoke in the morning to see, upon looking out of my window, a perfectly level country as far as the eye could see. This is in western Kansas and, if it but had plenty of rain, what a wonderful country this would be. We had breakfast and then the day's work began.

Government-Horse Give Rise to Annoying Experiences

For the first time in my life, I saw some real western cowboys ride some real bucking horses. Some of these horses, less than a year before had been wild in the mountains of Utah, and many of them had to be lassoed and subdued.

Things went along very smoothly for some little while now and every day I was picking up some new ideas and customs in military life. It was not long, however, before our commanding officer was ordered away and we received a new one. After we had been on the road some two weeks, we stopped at a little town about sixty miles from Des Moines, Iowa, where the board had purchased a carload of animals; and here they left me behind

to ship these animals. We had the first heavy snow storm of the season that night, and, true to reputation, this hotel-room had no heat nor any bath. This was quite a change from steamheated rooms, with hot and cold running water and an individual bath. However, I had plenty of covers for my bed and kept very warm, although I did hate to get up the next morning. I was to wire my party when I was leaving, so that, in case they wanted me to change my point of meeting them, I could do so. From the best information I could get in the morning, I could get them loaded in time for a train at midnight. Just at noon, I traded the car that I had ordered for one that was to be loaded by a stock-buyer and had a fast through-freight pick them up, and in this way I got them off at 3 o'clock in the afternoon. When I sent a message to the station, I was informed that they had been unable to get any messages through on that day, but, would do the best they could. I waited until 9 o'clock, but, receiving no answer to my message, I had the fast train, that passes through this town at 9:30 p. m., stopped and proceeded to Des Moines, where I arrived at 12 o'clock midnight.

The train to St. Louis that I wanted to travel on left at 8:45 p. m., so, by taking the morning train, I could not get into St. Louis in time to report that day, I thought this a favorable opportunity to visit a friend of mine who was a sergeant in an ordnance company; so, I spent the day with him, leaving at 8:45 p. m. that night for St. Louis. I arrived the next morning and reported at once to my commanding officer. He was very angry and reprimanded me very severely for not getting there a day earlier; I tried to explain the situation to him, but, he was not very amenable to my explanation. In about three days after this, I received a note from the office saying: "The colonel wants to see you at the office." Can you imagine how worried I was, especially since I did not get into the office for three weeks? I saw visions of iron bars, penitentiary-cells, rock piles, and everything that looked like a prison. Now I would know that any note coming to me in the form that one come in would not mean as much as I thought that that one might mean.

We arrived at the office at last, and maybe you think it wasn't a hard job for me to go into the colonel's private office; still, I mustered up courage and went in and reported. He listened to a part of my explanation and said, "That is enough, you are dismissed." My heart gradually sank back to where it naturally belonged, for, it had been trying to force its way up past my adam's-apple. Well, to say that I was relieved, is puttting it much too mildly, however, my vocabulary contains no words that would express it in any way, hence, it would be folly for me to attempt it.

Things were progressing very favorably and without any unusual circumstances, and we remained in Sioux City, Iowa, during the first half of December, and, during our stay there, there occurred a very bad snow storm and cold spell; one of the worst that had been experienced during that month for many years. We were ordered to St. Louis and started in the evening by way of Omaha. We were due in Kansas City the next morning at 8:30 a. m.; but, instead of arriving there at that time, we just pulled into the Union Station at Omaha at that hour.

The Amusing Bridal Couple

We left shortly for the next lap of our journey and it was a slow and tiresome journey, but for a pair of newlyweds on the train, whose childish actions sort of amused us to the extent of helping pass away the time. The groom was about 45 years of age, while the bride was possibly a little more than 30; each had been married before, but, had lost their mates by death. He was about 5 feet 8 inches tall and weighed about 150 pounds and she was almost 6 feet tall and weighed about 200 pounds. If I remember rightly, there were four of us officers in the party and, of course, since we were on the train all day, we had no difficulty in making the lady's acquaintance when hubby left to have a smoke. She was very free about letting us in on her inside life, and she informed us that she had been working hard and supporting herself and two children, and that she had grown tired of it and that, while she did not care a great deal for this man, he had plenty of money and promised her everything that she might want. Now he was taking her to California for the winter. I could think of no nicer place in the world for one to spend the honeymoon than a place where the flowers always bloom and the sun shines every day. I think I should like to spend a honeymoon there, myself.

[*To be continued.*]

What Others are Doing

THE TREATMENT OF JAUNDICE

In a case of jaundice, says W. H. Willcox in *The Lancet* for May 24, careful search should be made by the usual clinical methods for the primary cause. The important cours to adopt is, the correct treatment and the removal of the primary cause of the condition.

Thus, the diet should be free from fats; protein constituents should be reduced, since there is a tendency, especially in toxemic cases, for acid intoxication; alcohol best is avoided; saline aperients should be given, but powerful purgatives best are avoided. Calomel in fractional doses is not advisable, since there is a risk of symptoms of mercurial stomatitis developing. Alkalis such as sodium bicarbonate—should be given internally in large doses while, in toxemic cases, strong solutions of it may be administered rectally as often as it can be retained. Any special symptoms will require appropriate treatment as they arise.

THE PREVENTION OF VENEREAL DISEASE

To do bodily harm to others, either by neglect or intentionally, is generally regarded as a punishable offense against society. While most people are kept from the more obvious forms of crime by a sort of congenital sense of the rights of others, combined with injunctions imbibed at their mothers' knees and on the school-bench, there are some members of every community whose powers of inhibition require extraneous assistance throughout their whole lives and who have to be constrained to obey the public conscience, instead of being a law unto themselves.

Reasoning along these lines, Dr. W. E. Fothergill (*Internat. Jour. Surg.*, June) expresses the opinion that, to infect a person with venereal disease, is, to do that person grievous bodily harm and, therefore, should be deemed a punishable offense. Indeed, he suggests, in all seriousness, that it should be made an offense against the law for any person of either sex to infect another person with venereal disease. While, no doubt, it would be difficult to obtain evidence and to secure convictions, criminal laws frequently are beneficent by acting as deterrents rather than punitively. Gonorrhea could be kept down, Doctor Fothergill thinks, without notifying and keeping all its victims in hospitals, by letting it be known that anyone conveying the disease to another were liable to six or eight months' hard labor, without the option of a fine.

In Doctor Fothergill's opinion, free treatment of venereal disease at the public's expense is good for the individual patient, but, will increase venereal disease in general rather than diminish it. Compulsory notification would do harm by driving patients to the quacks and frightening them away from the doctor. The offense against the community, namely, infecting persons with venereal disease, could be kept down like other crime, simply by making it a punishable offense.

TREATMENT OF ECZEMA WITH RECTAL SALINE INJECTIONS

Some years ago, it was noticed, during an epidemic of infantile diarrhea, in Paris, that certain infants suffering from conditions of the skin were much improved as regards their skin trouble while receiving the saline treatment for their diarrhea.

With this fact in mind, Percy B. Spurgin (*Brit. Med. Jour.* May 4) adopted this treatment in a case of eczema that was unusually severe and had threatened to cut short the life of the patient.

The patient was a man 49 years of age, who had served in France with a labor-battalion, but, had been returned to England because of the swelling of ankles and feet, and which, eventually extended to the knees. Shortly before he was to be discharged from the army, this patient was taken ill with a confluent eczema on the forearms and hands, as also some patches

on chest, face and neck. Soon thereafter, the ears and neck became covered with crusts from under which pus was oozing, this condition not being relieved by fomentations.

The condition of the patient became rapidly worse; his temperature, at first subnormal, soon went above 100 degrees, and the patient grew very weak and emaciated. In the course of time, the eczema extended over the entire trunk, and covered the four limbs. Hands, wrists, and knees were much swollen, and great pain was complained of. The malady was so severe that the patient was prostrated, while, among other signs of disease, the respiration assumed the Cheyne-Stokes character, together with a weak and thready pulse.

In the fourth month of the illness, it was found that a simple soap enema, followed by a rectal saline containing 1 ounce of brandy, was retained and followed by some slight improvement. These enemas were repeated every other day, with the result that the improvement in the general condition continued, while the eczema rapidly cleared away. The swelling of the joints became less, although the pain persisted. Under this treatment, the improvement was continuous and the patient ultimately was discharged in good health, except for a chronic gouty arthritis.

ANESTHETIC PROBLEMS IN PROSTATECTOMY

It has been said that the selection of the anesthetic suitable to the patient's condition frequently will be a more potent factor in the favorable prognosis than the surgical procedure itself. This seems to be true, more especially, for prostatectomy more than in almost any other condition, and, indeed, Dr. Lillian B. Mueller asserts (*Urol. & Cut. Rev.,* July) that, in the operation of prostatectomy upon an aged man, the anesthetist choosing and administering the anesthetic really assumes a responsibility as great as that of the surgeon. Furthermore:

The main factors complicating the administration of an anesthetic in cases of removal of the prostate are, the age of the patient, his lowered vitality, or resistance, and the toxemia consequent upon the disease.

Since most of the patients subjected to this operation are in the late sixties or early seventies, one expects to find, and does find in many of them arteriosclerosis, increased blood pressure or some myocarditis; all of them contributing toward rendering these patients poor risks for inhalation-anesthesia. In the second place, these patients mostly have been ill for a long time. They are poorly nourished, because of lack of appetite and failure to assimilate their food. Consequently, they are feeble and their resistance is below par. Moreover, they are subject to great fatigue from loss of sleep, and it has been shown (Crile) that insomnia produces changes in the brain-cells typical of exhaustion or shock.

The toxemia from which most of these patients suffer results from the retention of urine with consequent absorption, into the blood, of toxic products of metabolism. In addition, there usually is present bacterial infection and absorption of the products of bacterial activity. Finally, the impairment of the renal function tends to aggravate the condition.

Of the three methods of anesthesia, available, namely, local, spinal, and general, the local anesthesia has the disadvantage of subjecting the patient to nervous strain and also to some pain, while the spinal anesthesia is not devoid of danger and sometimes causes extreme depression.

Of general anesthetics, chloroform is not to be considered for patients undergoing prostatectomy. Ether, while safer than chloroform, is undesirable for old men, because there already is impairment of renal function and because of the risk of possibly aggravating this to its entire suppression. Moreover, there is some danger of pulmonary complications.

From this, Doctor Mueller concludes, by exclusion, that nitrous-oxide-oxygen anesthesia is the method of choice for prostatectomy, a method that is safe in this work and has proved entirely satisfactory in her experience, as well as in the hands of many others.

It does not irritate the lungs and kidneys, as do ether and chloroform. It causes less destruction or red blood-cells. It produces less acidosis, and that only of a transient nature. It was formerly thought that arteriosclerosis was a contraindication to the use of nitrous-oxide; this, however, has not been supported by clinical experience. Blood-pressure tracings, sys-

tematically taken, show very little change in the level of the systolic pressure.

The success of the anesthesia is promoted by suitable preparation of the patient. Rest in bed, good, nourishing, and easily digested food, and the administration of alkalis before the operation tend to obviate acidosis.

It is desirable in these cases to give a preliminary narcotic. Morphine, gr. 1/6 to ¼, according to the size, weight, and physical condition of the patient has proved satisfactory in Doctor Mueller's hands.

The anesthesia itself should be shortened as much as possible. All necessary preparations of the patient, surgeons, assistants, and nurses should be complete before starting the anesthetic, so that no time may be wasted.

There is another detail that is of importance: The patient must be kept warm and dry during the operation.

THE RELATION OF HEREDITARY SYPHILIS TO ESSENTIAL EPILEPSY

The etiologic importance of hereditary syphilis for the occurrence of epileptic symptoms was recognized many years ago, in fact, as far back as in 1792, when Hoffmann succeeded in curing a young epileptic by means of mercury. The question that has been discussed many times, both affirmatively and negatively, was recently investigated by Doctors Bobonneix and David (*Gaz. des Hôpit.*, April 10) in connection with eight case-histories.

The first concerned a young girl whose maternal grandfather had, undoubtedly, been syphilitic, while she presented no specific symptoms, except for a strongly positive Wassermann reaction.

The second patient, 21 years of age, showed dental lesions characteristic of hereditary syphilis.

The third, a child of 9 years, presented signs on the part of the bony skeleton, which Broca and Menard attribute to hereditary syphilis. In the fourth, a young man of 20, there were suspicious scars, and the Wassermann reaction was slightly positive. The fifth, a man of 28, presented evidences of degeneration and a slightly positive Wassermann reaction. The sixth, 24 years, also was degenerated, with Hutchinson's teeth, unequal pupils and a slightly positive Wassermann test. The seventh, a man of 48, gave a strongly positive Wassermann reaction. The eighth, a boy of 13, with epileptic family-history and psychic disturbances, gave a slightly positive Wassermann reaction.

After discussing the various opinions that have been advanced, both in affirmation and in denial of the syphilitic nature of some cases of epilepsy, the authors come to the conclusion that, in a number of cases, an essential epilepsy undoubtedly rests upon hereditary syphilis as the sole cause. In consequence, they advocate, in all cases, the resort to specific treatment, which they formulate as follows:

First, mercury, in the form of intravenous injection of the cyanide.

Second, potassium iodide which must be given with care, because children frequently bear it but badly.

Third, neosalvarsan, administered with suitable precaution.

The authors stress the fact, that the results of treatment will be better, the sooner it is instituted.

INFLUENZA IN NURSLINGS

Achard, according to the *Gazette des Hôpitaux* for March 22, declared, in a recent meeting of the Academy of Medicine, that the opinion that grip does not afflict infants is not quite correct. In the Necker Hospital, he has seen thirty-two cases, with eight resulting deaths. As in adults, there are light, moderate, and very severe cases. The latter are characterized by bronchopneumonic complications, these appearing, usually, about the seventh or eighth day. In most cases, it was the mother or the wet-nurse that transmitted the contagion.

THE USE OF A VACCINE IN THE RECENT INFLUENZA-EPIDEMIC

After a discussion of the bacteriology of influenza, as it was observed in Winnipeg, during October last, Major F. T. Cadham, of the Canadian Army Medical Corps (*Lancet*, May 24) describes the preparation of a vaccine that was used for the members of the Canadian Expeditionary Forces, for the purpose of immunizing them against the acquirement of the disease.

A strain of streptococcus obtained from an empyema was used. This was added to

two strains of streptococci from the nasopharynx of soldiers that had arrived from the East and were suffering from the disease. From time to time, other strains of streptococci were added, taken from nasopharynx, from blood-culture, and from lungs *post mortem*. One strain from the pharynx gave cultural characteristics of the streptococcus viridans.

In addition to the streptococci strains, the pneumococci were obtained from nasopharynx and sputum, while the influenza-bacillus also was isolated and cultured. The vaccine, as employed, contained, per dose, 300 million streptococci, 200 million influenza-bacilli, and 150 million pneumococci.

Major Cadham's conclusions based upon his observations are as follows:

"It is a difficult matter to estimate the value of prophylactic vaccine as used in this epidemic of socalled influenza. Bacteriological findings show that the kinds and strains of bacteria found complicating the disease vary in different districts, and even at different stages of the epidemic in the same district. The disease is known to vary in severity in localities not widely separated geographically and during different stages of the epidemic in the same localities, so that, in estimating the value of a vaccine, these facts should receive careful consideration.

"I believe the vaccine used as a prophylactic for the military personnel of this district to have been of value. The incidence of pneumonia was less than one-half and the mortality rate less than one-third in the inoculated as compared with the uninoculated men admitted to the Special Military Hospital under similar conditions. The mortality rate for the city for the period of time under consideration was 6.28 per 1000; 53.6 percent were males, 75 percent of these being at the age known as military age. The mortality rate of the soldier in the city, for the same period of time, was 2.5 per 1000.

"The statistics, obtained from the physicians, as to the use of the vaccine in civil practice appear favorable."

PROTECTING THE EYES DURING INFLUENZA EPIDEMICS

The Trained Nurse and Hospital Review for February quotes the following item which appeared originally in *The Minnesota Health Journal:*

"The use of an efficient mask to cover nose and mouth has been thoroughly-well exploited. Notes are beginning to come in now, telling of nurses and others contracting influenza despite the use of masks and washing of hands. The fact that the eyes are exposed to mouth-sprays has been generally overlooked, and little reference, if any, has been made to the necessity of wearing some protection for the eyes. It is obvious that the eyes may become directly infected or that the organisms falling upon the eyes may be carried by the tear-ducts to the nose and, therefore, to the throat and mouth.

"I have seen an instance in which diphtheria was contracted by a most careful physician who wore a mask and washed his hands, the fact being that the patient from whom he was taking a culture coughed directly into his eyes. He did not contract diphtheria of the eye, but, of the throat. His exposure was limited to one evening when he relieved the regular man in charge of the diphtheria-ward. It is well known that, in the pneumonic form of the bubonic plague, the necessity of precautions to protect the eyes, as well as the nose and mouth, is thoroughly-well established."

Let's Talk it Over

Letters from France—XI

BEFORE the United States came into the war, I received from one of its very wealthy women a letter saying: "I want you to find for me an American boy in the front-line service who has no family at home, so that I can correspond with him and send him some little comforts." So, I had inserted an advertisement in one of the English papers, which elicited eleven replies—all good ones; however, one in particular arrested my attention. This one wrote as follows:

"I am an American boy born in Georgia, without relatives, and should be delighted if some good woman would correspond with me. I was in England when the war broke out and, so, joined the British Army. I have been twice wounded, the last time having my left hand partly shattered, for which reason, they refused to receive me back into the infantry. Then I joined the Aviation Corps and expect to receive my diploma shortly. I have been decorated with the Croix de Guerre and promoted a corporal."

Here was a boy that could have had an honorable discharge and quit, but, preferred to join the most difficult and hazardous arm of the service. I sent his letter to the American lady in question and wrote him to call and see me when in Paris. Some months later, his card was brought to me; I ordered the servant to show him in, and I arose with brightened eyes and a glad smile to welcome the hero soldier, who, appearing in the doorway, revealed to my startled gaze a tall, deep-chested, broad-shouldered Negro, black as the ace of spades. The man noticed at once my look of astonishment and a wide grin showed his appreciation. Recovering my composure, I seized both his hands and made him feel at home. He proved to be a professional prize-fighter, making a tour of the British Isles at the outbreak of war, and the hour that followed was filled with the recital of experience of absorbing interest.

I set out to write my American lady, not knowing just how she would relish the fact that her "adopted" soldier was a southern Negro. However, putting my best foot forward, I ventured the statement that Negro boys of this kind and quality were deserving of our support and encouragement. The woman cabled in reply to my letter: "I am just as proud of B— as you are."

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Before the war had upset the ordinary routine of life, this used to be the season of the year when the pleasure- and comfort-seekers' fancy lightly turned to thoughts of sunshine and warmth. During the last fortnight of January, four long crowded trains from the Gare de Lyon every night began conveying their loads of visitors to the Riviera. Then came the war, and many of those that were in the habit of passing the winter on the Côte l'Azur were in the trenches or engaged on war-work of some description. Now, pending the restoration to something like normal conditions all around, the fact that the Riviera has been made a leave-center for the American army has brought back to it something of its pristine prosperity.

Of course, the railway company, obliged to meet the requirements of the military situation, can not offer as many facilities for traveling as it did before the war; still, provided one is foresighted and books a seat in advance, it is possible to make a very comfortable journey down.

A few days ago, I was one of the passengers on the Riviera train that leaves the Gare de Lyon at 8:15 p. m. I do not think that it is an exaggeration to say that 60 percent of the passengers were Americans. There were no vacant seats; in fact, standing-room in the corridors was cheerfully accepted by not a few hardy

warriors that had quite forgotten the meaning of the word luxury.

As far as to Laroche, we read the evening papers and formed the acquaintance of our fellow passengers. Then we slept, but, as we approached Dijon, many were awake again and the moonlight tempted one to wipe the window and look out. The ground was white all over. At first, we thought it was merely a moonlight-effect; but, no, it was snow. This was chilling, for, our beauty-sleep had been accompanied by dreams of palm-trees and sunshades and other things suggestive of solar temperature.

When broad daylight had arrived, there stood a line of Americans in the corridors taking stock of the country as they held on to the brass rod. For the time being, at any rate, it was an "American Bar." South of Avignon one of them exclaimed: "Say, isn't this just like California?"

But, after Marseilles had been left behind and the irresistible beauty of the coast and the hills was being unfolded to us, an American officer, who had traveled all over the United States, said to me: "This is great! It far surpasses anything that I had anticipated. There is a sentimental quality, a romantic glamor about this scenery, which has no parallel in our own country."

. And, as we watched the olive-groves, vineyards, fig-trees, palms, feathery mimosas, and weird eucalyptus-trees, speeding by, we realized that we had reached the land of winter sunshine.

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In Nice, where I have taken up my temporary abode and with which I am familiar from many years of winter-sojourns, everything is changed from its oldtime normal routine. This place now is the most populous leave-area for the American army, and it is safe to say that there are here 15,000 officers and men spending their seven- or ten-days leave. There is not a nook or cranny in the big town of 150,000 where the khaki is not to be seen.

Nice being centrally located and the largest city on the Riviera, is the capital of the district, and from here numerous excursions by auto-train and railroad-train can be taken toward the eastward, to Monte Carlo, Mentone, and various capes projecting their peninsular noses into the Mediterranean, then back into the range of mountains that border the sea, leaving a small strip of rising land, which protects the various towns and resorts from the north-winds and is called the "Alpes Maritimes", over the summits of which the great Napoleon constructed the famous Corniche military road for his march into Italy, and, riding over which, one obtains a panoramic view of the litoral, which has no equal elsewhere.

The Red Cross and Y. M. C. A. are here in full swing, governing four of the big hotels as hospitals and occupying the "Jetté Promenade" for amusements, besides various other locations. These points of interest and activity I shall make the subject of another letter.

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Prof. André Chantemesse has just succumbed, in Paris, to an attack of grip, which laid him up a few days ago. He was in his sixty-eighth year, being born at Le Puy (Haute-Loire) on October 13, 1851. He leaves a son, who is an officer in the French Army.

M. Chantemesse studied in Paris under Pasteur and Professor Cornil. He visited Germany and worked in the laboratories of Koch and of Bollinger. In 1885, he was appointed physician to the Paris hospitals and, in 1889, brilliantly passed his "concours d'agrégation." The Faculty of Medicine then appointed him to the chair of experimental and comparative pathology, and soon after he was appointed professor of hygiene.

He was made a member of the Academy of Medicine, in 1901. He was a member of the Consulting Committee of Hygiene of France and of the Board of Health of the Seine, and became Inspector-General of the Sanitary Service. He also was entrusted with numerous missions in France and abroad.

Chantemesse's principal works were in connection with bacteriology, epidemic dysentery, infection of water, and typhoid fever, against which latter he discovered a serum. In a recently published article, Professor Chantemesse demonstrated that epidemic diseases are transmitted by flies.

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Another great surgeon has just died, and his loss will be irreparable. H. Morestin, during the four years of the war, became celebrated as the greatest living plastic surgeon. All of the badly disfigured victims of gunshot- or shell-wounds

were sent to him and he virtually made new faces for all of this class of wounded. His energy seemed inexhaustible. He worked without ceasing. He had a service in the Val de Grace Hospital, the St. Louis, and in his own institution, over which he presided, the Rothchild Hospital. From time to time, he presented the results of his work before the Surgical Society and Academy of Medicine in lots and moved his colleagues to wonder by the results secured by him.

He was a student under Verneuil and last under Richelot, whom he succeeded at St. Louis when the former retired, full of years and honors.

In the immensity of his work for those mutilated by war, he knew no rest. He worked rapidly, feverishly, brushing aside all minor difficulties and restraints, he went directly to the results aimed at, so much so that he was sometimes called brutal in his methods. Thin, wiry, nervous, and quick, he appeared brusque and unsociable; but, he accomplished a tremendous amount of work and, despite fatigue and signs of strain, he continued without ceasing to the last day of his strength, falling a victim to quick consumption at the age of 49.

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Another illusion has been shattered by the prevailing outbreak of grip. It was formerly thought that influenza rarely, very rarely, attacked a person twice, not, because one attack necessarily was sufficient, because fatal, but, because it conferred a sort of immunity. This idea has now been proved erroneous. According to statistics gathered by the *Matin*, about a third of those now suffering from grip have had a previous attack quite recently. Instead of acquiring immunity they would seem to have been rendered more susceptible to the malady.

No precaution should be neglected, therefore, to avoid possible contagion, particularly in view of the virulence of the present epidemic. In England, the deaths attributed to influenza numbered 3,046 last week, as compared with the previous-week's record of 1,363. Although the outbreak in Paris is less severe, the statistics of deaths from grip indicate an upward tendency.

Among the preventive measures of grip that have been tried in England, one of the most efficacious is the simplest. It consists in gargling frequently and the sluicing-out of the nostrils with a solution of a tablespoonful of table-salt in a quart of tepid water, a mixture that acts as a sterilizing agent. As regards the treatment, Prof. Albert Robin recommends pyramidon and quinine bihydrochloride, to counteract fever, and hot infusions, to induce diaphoresis.

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J. Howard Lichtenstein, formerly a sergeant and working on the staff of "Stars and Stripes," the official newspaper of the A. E. F., has the distinction of being the first American soldier to receive his honorable discharge in France, so that he could become a member of the overseas forces of the Jewish Welfare Board. Before entering the service of the United States, Lichtenstein was a publicity-writer and newspaper-correspondent in the States, and, while in the service, has devoted a great part of his spare time in behalf of the men of his race.

Since the armistice, the Jewish Welfare Board has decided to devote the greater part of its activities to the troops of the Army of Occupation and all base ports, classification-camps, and wherever men of the A. E. F. are quartered in large numbers. Rabbi H. G. Enelow, field-secretary, who has been touring the A. E. F., locating new centers for the J. W. B. where to erect huts, is also lecturing at Y. M. C. A. centers in behalf of the comrades of service.

The J. W. B. sign and its workers can now be found in many important centers of France. At Saint Aignan, where 70,000 casuals are being classified for return to the states, the J. W. B. has constructed a large Class-A. hut, with all possible conveniences. Saint Nazaire also has a well-fitted clubhouse, with a force of workers. Tours and Dijon also have headquarters and clubrooms, as have Gièvres, the Le Mans area, and Coblenz. Paris now being a leave-center, the organization has decided, in order to extend its activities, to occupy larger quarters there.

The Jewish Welfare Board has opened a welfare-and-information-center at Le Mans, a point in France around which a large number of Jewish troops are concentrated. A clubroom has been fitted up

at 26 Rue Chanzy, Sergeant-Major Charles S. Revitz, of Cleveland, being in charge.

The arrangements for Friday-evening religious services and other matters pertinent to the spiritual welfare of the men will be superintended by Rabbi H. G. Enelow, of New York, who has traveled throughout France and has met hundreds of Jewish boys among the American Expeditionary Forces.

Le Mans will be a clearing-house for the activities of Jewish welfare-workers. Several other welfare-centers will be opened in France and in the territory now held by the Army of Occupation.

In the presence of most of the S. O. S. Headquarters officials, Y. M. C. A., and Knights of Columbus representatives, the local rabbi, the civil authorities, and many enlisted men, the new soldiers' Club-Rooms and Educational Center of the Jewish Welfare Board, at 26 Rue de l'Arsenal, Tours, were formally opened yesterday. Addresses were made by prominent officials, refreshments were served, and then a highly successful entertainment followed.

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Several thousand American soldiers sail for home every day and, unquestionably, they are the happiest Americans in all France. The Red Cross and the Y. M. C. A. are cooperating in giving the boys a royal sendoff, the Red Cross caring for the sick and wounded and the Y. M. C. A. for the others. In one base, which contains 200,000 men, the Y. M. C. A. is running eighty entertainments a day, soldier companies being its star entertainers, although the always popular cinema-show still is the most important factor in the entertainment of the men generally. A show featuring William S. Hart drew an immense crowd to the City Hut.

These entertainments, however, are largely for the men not yet lucky enough to have definite orders to embark, or are waiting for ships to take them home. Those scheduled for immediate embarkation need little entertaining. The sick and wounded, for the most part, are taken aboard in the morning, a splendid band giving them a farewell concert, with the Red Cross doing everything for their comfort. In the afternoon, the band plays in the big Y. M. C. A. hut on the dock, through which the men march on the way to the ships. As they listen to the concert there, they are served with hot chocolate and supplied with candy, cigarettes, cookies, and all they want of the latest current reading-matter from America.

The cheerfulness and bravery of the wounded is a fine example of the gameness of the men of the A. E. F. Thus, one of the men boarding the Kroonland yesterday had lost both arms. A Red Cross nurse offered to feed him, but, he replied, with a grin: "Never mind, miss. My buddy is taking care of me." Then the nurse observed that the "buddy" also had lost one arm.

B. Sherwood Dunn.

Paris, France.

THE X-RAY IN GENERAL PRACTICE.—COUNTY HOSPITALS

I have very little to offer in the way of any extensive knowledge of electrotherapeutic measures and procedures for treatment of disease. However, I have had, for a number of years, a small Vulcan coil that has served me well in a number of different circumstances. First and foremost, this coil has served me in my fracture- and dislocation-work. I feel that an x-ray apparatus is an absolute necessity in these days for all work of that kind. In fact, any practitioner that does not avail himself of the x-ray in all of his cases of fracture and dislocation does not treat his patient right nor gives him his due, and, certainly, he lays himself liable to censure and malpractice.

As a means of diagnosis, I feel that an x-ray-apparatus is an indispensable part of the office-equipment. So far as treatment is concerned, I have had very little experience. I have burned off with the x-ray a number of suspicious-looking growths, and have had good success in getting rid of them. With the violet-ray, I have had, in a number of cases of neuritis, lumbago, and kindred diseases, good success and, in a great many cases have secured immediate relief. I fully believe that the time is coming when every small city of any consequence will have at least one man with a good x-ray equipment, competent and ready to serve his fellow doctors and protect them in their fracture-work and give proper and scientific treatment for disease.

I am enclosing with this letter a post-card-picture of our Wilson County Hospi-

tal, which was built here in 1917. This hospital was built as a county-institution, with county-money, and is supported by the county. This was made possible by a state law passed in 1913. After certain definite procedures were taken and the proper number of signatures obtained, the county-commissioners had to order its construction and take it over as a county-institution and see to it that it is being properly conducted and cared for the same as any other county-concern.

Wilson County Hospital.

We knew something of this law, perhaps had something to do with its enactment; so, we started our petition before our county-seat knew that there was such a law on the statute-books. Anyway, we carried the proposition and thus have today one of the most-complete little hospitals in Kansas. During the two years that it has been in operation, it has served about 700 patients, nearly all successfully, and, of this number, less than a score have been county, or pauper-patients.

Our hospital is managed by a board of laymen trustees, elected the same as any other county-official, and is in charge of a woman superintendent and head nurse. It conducts a training school for nurses, and, eventually, we expect to have it modernly equipped with laboratory, x-ray apparatus, and all modern and necessary equipment for diagnosis and treatment.

A law like this one should be on the statute-book of every state in the Union, and every town of any consequence should have just such an institution. We are all mighty proud of our county-hospital and later on, if you wish, I shall be glad to give you more definite information regarding our hospital, the state law concerning such institutions, its success with patients, and the training of the nurses.

J. L. Moorhead.

Neodesha, Kans.

HIGH-FREQUENCY CURRENT AN AID TO ELIMINATION

From observations made during twenty years of experience in the general practice of medicine, I am led to believe that the prime cause of disease to which the human family is heir, is, faulty secretion. The reagents in nature's laboratory are not supplied in the exact definitely required portions; hence, an imperfect chemical reaction, resulting in a troublesome precipitate. Once an error is made, we have a Pandora's box wide open. The scattering evils hide themselves in every nook and cranny of the many-sided complexity of the human organism, and many, indeed, are the hidden nests, each available as a nidus of infection.

To correct as nearly as may be the disorganization caused by these irritating substances, calls for neutralization and elimination. In this, I find that the high-frequency violet ray is very efficient. In some way, this current causes a solution of the irritating substance in the body, enabling the system to eliminate it from the body.

Here are some concrete examples: A carpenter, very heavy, had sprained his hip. He was so lame that he could not walk without crutches. By "warming" him up with the violet ray once a day for a week, the pain and soreness and stiffness subsided entirely and he resumed his regular occupation.

Another man had a lame ankle-joint. He came limping into the office, and a ten-minute treatment was given through his hose. He put on his shoe and said that his pain had left altogether. He took but that one treatment and asserts that he had no more pain after that and that the soreness rapidly disappeared.

Another came with a furuncle forming upon the forearm. Two treatments with the fulguration-electrode dissipated the deposit and no further discomfort was experienced.

Still another case was that of a woman suffering from a severe attack of rheumatism of the knee-joint. The patient could not put her foot to the floor and was confined in bed. She was treated twice a day

for ten days, when the trouble had disappeared entirely.

I have been well pleased with the results obtained in headaches, neuralgia-pains, lumbago; as a tonic for weak optic nerves; and in acute urethritis. I am convinced that we have an agent of far-reaching influence in electrotherapeutics and feel sure that its field of usefulness thus far has been merely skimmed.

In all these cases, elimination is of prime importance, and, if given proper attention, we have in these two processes, neutralization and elimination, a sure aid to the "cleanup and cleanout" therapy. Then, if we "keep clean," the deed is done.

P. S. Ayres.

Arkansas City, Kansas.

HIS AUTO JUST LIKE RICKETY GRANNY

Please keep up your automobile talks, for, I have one, and it gives me less pleasure, less service, and more expense and more trouble than anything I've ever owned. It is just as the little fellow said that his grandma was: "When there wasn't one damn thing the matter with grandma, there was another." That is the way with my automobile.

J. A. Smith.

Lyerly, Ga.

PSYCHOTHERAPY: ITS SUCCESS, ITS SCIENCE, AND ITS SECRET

Dunglison defines psychotherapy as the "application of the influence of the mind on the body to the treatment of disease. Treatment by hypnotic suggestion". This is sufficiently comprehensive to cover all the various phases of psychic healing now in vogue, by whatever names they may be called.

In 1916, competent authorities estimated that more than 20,000,000 people in the United States relied upon drugless methods of treatment for relief from their afflictions. Christian Science alone has over 12,000,000 adherents in this country; and this is only one of the fourteen or more mental methods now practiced. Their growth is phenomenal, far beyond the normal increase of our population. Mrs. Eddy started the Christian Science cult in 1866. In Boston, where the mother church is located, it is admitted that doctors and druggists are slowly going out of business.

How, then, does it happen that, within half a century, one-fifth of our people have forsaken the world-old medical methods for these new "pathies?" It did not "happen". Nothing ever happens.

We live in a world in which all things are governed by the laws of cause and effect—evolution, we say. These laws govern in the realm of mind as well as of matter. This being true, there is a reason for this rapid change of base in therapeutics, in the most vital matters of human life.

In the study of the phenomenal success of the many schools of psychotherapy, we find this reason and their success was never more apparent than during the recent rage of the influenza, which has, indeed, almost been a pandemic. In my cursory survey of these facts, I shall try to be perfectly fair to all sides.

In my practice of many years, I have, in the main, been Eclectic in my office-work. In my visits outside, I rely on my alkaloidal granules; for, they are exact, dependable, convenient, and ethical. In medicine, however, exactly as in politics, science, education, religion, and philosophy, I follow St. Paul's advice, "Prove all things, hold fast that which is good"; and, the "good" in medicine is only that which effects a cure. I believe, however, that I can see the legitimate and necessary place held by every cult in the great scheme of human evolution.

It is true, as Herbert Spencer, the world's greatest synthetic philosopher, says, that "men never try to do the right thing in the right way, until they have tried every wrong way." The recent self-confessed failure of the regular practitioners, side by side with the equally noticeable success of the irregular and drugless healers, is one of many proofs of Mr. Spencer's wise apothegm. Is more proof of this needed? Listen to Dr. V. C. Vaughn, a former president of the American Medical Association. At a recent meeting of the Public Health Convention in Chicago, this authority of an autocracy confessed that the causes of the present epidemic are not known to the profession and, denouncing the use of vaccines, he declared that death is the only thing of which the profession is sure. Many other similar statements might be quoted from regular sources. In this city of 135,000

people, our published reports show an unprecedented mortality of grip-cases and that over half of the pneumonia-patients attended by regulars died. From many other cities, we learn of an equally appalling death rate. Some of these doctors have applied to our Eclectics to learn how we "happen" to be so successful in saving nearly all our patients.

Turning from this honest confession (which is good for the soul), let us look at the more psychical and drugless methods. Their success is equally noticeable. In this city of Fort Worth, where a few Eclectics, Homeopaths, and Physiomedics are permitted to practice, we have saved nearly all our patients, notwithstanding the fact that we do not get many of them until they have tried the regulars. Hence, we labor under a serious handicap. Of course, we Eclectics do forswear drugs, still, in discarding the opiates, synthetics, serums, and the depressants, to a very large extent, we guard the vitality of the patient. Hence, our success. An Osteopath here, whom I have known for over twenty years and who enjoys a very large practice, told me that he had not lost one case either of grip or of pneumonia. As confirmatory of such claims as this, I quote from the January, '19 issue of *The Journal of the American Osteopathic Association*, page 206, the following: "The statistics gathered by the American Osteopathic Association show that the medical mortality in the recent epidemic is about sixteen times that of the osteopathic." Editorials and other articles in the same issue fairly bristle with statistics that prove the truthfulness of this assertion. The Suggestive Therapeutic practitioners (Weltmerites), after twenty-years' practice, claim to cure 75 percent of their patients, most of whom are chronic, devitalized, and discouraged by the regular methods before accepting this mind-treatment as a last resort.

Mark the disadvantage under which this new "pathy" labors, and mark also its success. Turning again from this to another drugless cult, one thoroughly suggestive psychic, mental, metaphysical or hypnotic —whatever term you may wish to apply— I mean Christian Science—we get equally remarkable reports of success. During the height of the epidemic a hospital-ward with 200 soldiers in Waco, of this state, was given over to this Christian Science treatment wholly. Seven assistants were chosen by a doctor who had discarded absolutely the use of drugs for Christian Science. The result was that not one patient died and all recovered in an incredibly short time.

The adherents of this cult affirm that but few of them have grip at all, or any other disease, while, when they do, most of them recover quickly. Similar statements from these and other non-drug schools and pathies might be collected, but space forbids. Their success over the regular methods is beyond question. Further proof would be superfluous. Let any unprejudiced doctor study the conditions and results sympathetically. Let him ponder the fact that over 6,000,000 lives have been taken by this grim reaper within a few months—that is to say, more than were killed in the world-war—and that our drugless and reform-methods would have saved nearly all of them. [?—Ed.]

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But, what about the science of these phases of psycho- and semipsychotherapy? Science reasons. It cooly and carefully studies causes as well as results. All well-educated physicians know that disease, like everything else in this world of phenomena, is a result of previous adequate causes. They know, also, that, with respect to disease, these causes must be correctly diagnosed and removed, or the result, that is, the disease, will continue or recur.

In our haste to relieve the symptoms, we have, for many years, been drifting away from the use of those remedies that reach the cause of the trouble. We have resorted too frequently to the use of the ever handy "hypo," the antipyretic or something that only will "muffle the bells of the alarm"; no doubt often at the urgent request of the patient, but, mostly to his detriment.

The depletion of his vitality, which, we know, alone can be relied upon to effect a cure, is the result. Instead of aiding and protecting the vital processes, we have helped the disease to cripple them still more.

Moreover, as I study psychology, I am more and more convinced of the great truth embraced in that branch of mind-study called Suggestive Therapeutics. Back of all the phenomena in nature, and, indeed, controlling and molding and

changing all the visible universe, man included, is Mind. "There is one eternal thinker thinking noneternal thoughts" is a great truth from one of the world's Saviours. Another philosopher said: "In the universe there is nothing great but man; in man, there is nothing great but mind.

Every man, as well as every other manifestation of life, is but a thought of the one Infinite Mind. The activity of our conscious mind, in the waking state, represents, on the physical plane, only a fraction of our real individual life. There is a subconscious mind, whose sphere of action we are only beginning to take into the account. Moreover, internal autoscopy, together with our recent investigations in the realm of occultism, has revealed a world of intelligent and semiintelligent entities and forces, to which the physician —trained to think only in the realm of the conscious, the concrete, and the material—is a stranger. In our diagnosis and treatment of diseased manifestations, we have taken but little or no account of them. Hence, our failure to cure.

We have forgotten that it is the consensus of all the sciences, that all disease is unnatural, abnormal, and the logical result of the violation of nature's (God's) allwise laws; that health is natural, right, and the logical result of obedience to these mandates, and that mind is the master molder of all material things.

We must study the science of mind in nature, both without us and within us, and we must study it sympathetically, if we would equip ourselves for the work of mastering mind's manifestations in the physical bodies of men.

We should know that good thoughts always bless and help, while bad thoughts depress and injure both the sender and the receiver. This brings us to our concluding thought—the secret of the success of psychotherapy.

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The thoughtful reader whose mind functions even a little in the abstract and the intuitional realm will have sensed my leading thought in the elucidation of this point. For its complete elaboration, I only have to point to the literature of Christian Science, the many works of the great New Thought movement, and the books and magazines on health-culture.

All the phases of psychic healing may be grouped under three main heads: Magnetic Healing, or, the sending of vital force to the affected parts; Mental Healing, or, the controlling of the cell-mind; and Spiritual Healing, which last form arises from the healer's possessing a very high degree of spiritual unfoldment and his being able to impart his energy to others.

In the last analysis, however, it will be found that all forms of psychic healing are forms of mental healing. It also will appear that, just in proportion as the mind of the healer can be focused upon the work in hand, reinforced by the consent and cooperation of the individual under treatment, and also reinforced by other minds likewise focused, and again reinforced by previous training; to this extent, will a cure be effected, that is, in all curable cases. According to the law of evolution, nature's plan for man is health, harmonious functioning, long life and consequent happiness from birth to a painless physical dissolution. The laws of rhythm also demand this. Man is a part of nature and subject to its laws. He is not supernatural. There is no such thing as supernatural, although there is very much that is superphysical to most of us, at our present stage of mental evolution.

The secret, then, lies in our knowledge of our microcosmic relation to the macrocosm, that is, the great world without, and the facility with which we can open all the doors and windows of our mind and body to the influx of life, health, sentient energy from the world of these finer forces.

This involves, also, the elimination from the human laboratory of all dead matter, wornout cells, and useless material. It involves the conscious action of the healer in line with the law that mental maladies must be met and subdued by mental methods, not physical ones. That most of our maladies originate in the mind, is now well known. Adjustment, physical, mental, social, spiritual—adjustment in every respect, is the word which exactly represents the idea.

Consciously or unconsciously, the people, failing to receive the help at the hands of the regular profession, have turned to such sources as were within their reach. And, behold the results. These logically prove that better psychical adjustments have been made. It reminds us of the prayer uttered by the Christ when he said: "I thank thee, O Father . . . that Thou

hast hid these things from the wise and prudent and hast revealed them unto babes."

Too long has the wise-looking old doctor had his way—and his day. Now, the "babes," the simple children of nature, being forced "back to nature," as the philosopher Emanuel Kant used to say, are rapidly coming to their own. It is as true today, as it was in the time of the Great Physician, that "the Scribes and Pharisees sit in Moses' seat," as He said.

Think of it! These "irregulars", "hypnotists", "quacks", faithhealers", "rubbers", "spiritualists", and other unmentionables, "undesirables," most of them with little or no scientific education; think of them doing the work of "our noble time-honored profession" and succeeding where we failed! Thus has it ever been. "The first shall be last and the last shall be first." It is history repeating itself.

A medical autocracy, with plenary powers such as now exists, violates the primal law of the universe, the law of love. From hundreds of quotations, gleaned from our medical literature and from the wisdom of the ages, with which I might fortify, embellish, prove, and illustrate my position in this article, I close with just one from President Wilson, who said: "Human freedom consists of the perfect adjustment of human interests, human activities, and human energies."

This, of course, would correlate man with all the sources leading to perfect health, by abolishing all economic and other maladjustments that now constitute the chief impediments to man's attainment of that ideal state.

This, I believe, should and will, in the future be the work of the true physician. He will be a teacher rather than a dispenser of pills, powders, and vaccines; a teacher controlled by the sacred principles of brotherhood and leading the way to human perfection. To keep well by right living, meaning to live in harmony with the laws of the "One Eternal Thinker," will constitute the joy of existence.

S. J. Brownson.

Ft. Worth, Tex.

"DEFINITE MEDICATION"

I have read with much interest the two articles by Doctor Eli G. Jones printed in your valuable journal (pp. 230 and 303). I believe much of what he declares to be true, especially as regard our materia medica. Too many of our younger physicians of today have but little clinical knowledge about the medicines they prescribe, and, at that, have only a very limited list of drugs to select from. I know some physicians that do a large practice, and of whom the people think that they are successful physicians, whose materia medica really does not include more than 20 different drugs. These men prescribe virtually the same drugs in all the cases they treat. I think that Doctor Jones has actually tried the remedies that he recommends and, no doubt, had success with them; still, another doctor might try the same remedies and fail, for the reason that he would not understand how to use them.

Doctor Jones's materia medica represents a mixture of the botanic, eclectic, homeopathic, and biochemic materia medicas, and I believe that there are many good remedies in them. Many of his medicines have, to a large extent, gone out of use and would be difficult to obtain at drugstores nowadays. I have Doctor Jones's book, "Definite Medication", which I think contains many useful prescriptions and methods of treatment, especially in treating chronic cases. It is well worth the price of $3.50.

Russell Truitt.

Southwick, Ida.

DOCTOR JONES, AND "DEFINITE MEDICATION"

After reading Doctor Jones's article in the March number of Clinical Medicine, I wrote the author for a copy of his book. I was constrained to do so on account of the dogmatic assertions and positive statements contained in that article; but, I confess having to admit that I am somewhat disappointed. His book, as an insidious advertisement of Lloyd's specifics and Boericke & Tafel's homeopathic preparations, is a grand success, and I am inclined to the belief that he put one over on Abbott in the article above referred to, wherein he says that "my book, 'Definite Medication', was given to the profession in 1910."

To review the entire work, would take up too much space and time. From his introduction, I quote, "In our grand and noble profession, we have no place for a narrowminded man, a bigoted man. A

physician who can not see anything good outside his own particular school of medicine is a smallminded man." Further:

"Medical laws are a creature of the regular school. Any law making it a crime to heal the sick is a disgrace to any state or country. . . . If the eclectic physicians want to retain the confidence of the public, they must fight shy of all these 'unholy fads' that come from the regular school. Serums, coaltar products, deadly narcotics, that kill more than they cure, antitoxins that kill and cripple so many young children, useless surgery unsexing and degrading so many of our women, vaccination that does not protect and that is a blot upon our civilization and a disgrace to our profession, surgical operation for appendicitis, the greatest fraud of the century."—If that isn't bigotry, what is it?

The United States Department of Health, the state and county boards of health, likewise those physicians who can personally testify to the proctection afforded the public by vaccination will hardly agree with Doctor Jones when he positively states that vaccination does not protect from smallpox, but, in place of protecting the public, "has killed and crippled many of our children, increased the number of cases of cancer and syphilis, and is a disgrace to the medical profession."

In place of vaccination, he depends, principally, upon the following prescription:

Po. Bayberry-bark	dr.	½
Po. Ginger	oz.	1
Po. Capsicum	dr.	1
Po. Cimicifuga	ozs.	2

Directions: Put in one quart of water, steep for fifteen minutes, strain and sweeten. Drink a wineglassful every four hours. Bathe the surface of the body in lye-water and whisky three times a day. In addition, give every two hours a powder composed of ½ grain hydrastis and 2 grains of quinine.

Just what this prescription is intended to do, Jones doesn't say; for, he proceeds to tell what to give for the headache, delirium, pustulation, swollen face, eyelids, and so forth. How much more pleasing, effective, and therapeutically correct would be Abbott's calcium sulphide or Burgess' double-sulphide compound tablets.

Doctor Jones says that, in his practice of over forty years, he has never lost a case of appendicitis, nor has he ever seen a case that required operation. Tr. dioscorea, ferri phos, kali mur., a hot flaxseed poultice, enemas of saline solution, and a dose of castor-oil have cured his patients. Interesting, isn't it?

But, it is in obstetrical practice that the pages of his book fairly scintillate. In a practice of forty years, he has never used instruments—not even once—in fact, never had a pair of forceps in his possession. He never had a lacerated perineum or puerpural convulsions to contend with. What an enviable record! In this chapter, he imparts the knowledge that Indian women never employ a doctor in confinement, their easy labors being due to a free use of partridgeberry-tea previous to confinement. In this connection, I want to say that some of the most difficult cases of labor that I ever attended were among the squaws on an Indian reservation.

In the good doctor's eyes, it is a crime to use the hyoscine-morphine-cactoid combination, or to give chloroform to relieve the pain in cases of childbirth.

"In treating diphtheria, it is worse than criminal to administer antitoxin, and it is a reflection on your ability as a physician to say that you can not cure diphtheria without *injecting a filthy horse-serum.* (The italics are Doctor Jones's.) 'If the patient dies, you can truthfully say that you have done all that medical science can do,' but, under no circumstance, must you resort to antitoxin!"

I confess to a liking for some of the eclectic preparations, and I keep on my shelves some 20 or 30 of the socalled specifics; but, when it comes to adding B & T's homeopathic list, I draw the line. Abbott's alkaloids and Burgess' tablets will continue to hold the place of preference, with a nicely selected list of bacterins and proteogens, notwithstanding the anathema of the author of "Definite Medication."

In the chapter on "Arms, Hands, and Legs," no less than 44 different remedies are listed in the book's index, while chancre is allowed but two.

His mainstay, in gonorrhoea, is as follows:

Tr. Gelsemium	dr.	½
Tr. cannabis sativa	dr.	½
Spts. niter dulcis	oz.	1
Aqua, q. s. ad	ozs.	6

Label: Take one teaspoonful every hour.

No need to worry about our old elusive enemy, the gonococcus. In fact, the Doctor is not very friendly to the "bug" theory, anyhow, and pathological conditions are not mentioned in his work, unless it is with highbrowed disdain.

In the April number of CLINICAL MEDICINE, the Doctor tells us that only one physician out of several hundred expressed his (the Doctor's) views correctly. Wonerful. When I read his book and note the positive tone of his language, his wide experience in treating the innumerable symptoms of the almost innumerable diseases and the endless list of the combined eclectic and homeopathic materia medica, I say again, Wonderful.

Now, I do not wish to convey the idea that "Definite Medication" does not contain many good ideas. It does, and it will fully repay one to read it and accept many of the excellent ideas presented by its author. Yet, I can not help but think that, if the good Doctor had been willing to give credit where credit is due and had not tinged his otherwise excellent advice with "pathic" venom, the book would be more warmly received by the profession at large, notwithstanding the high price for the 312 pages between its covers.

JOHN H. LONG.

Lincoln, Neb.

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[This, and the preceding article, are representative of many letters that have been received by us, either in confirmation or in criticism of Doctor Jones's article. While we print these two communications, we have no desire to start a controversy, and, therefore, shall consider the matter closed herewith.—ED.]

OPPOSED TO SOCIALIZED MEDICINE

In the April number of CLINICAL MEDICINE there appears an article by Dr. C. E. Blanchard, titled, "Medicine Socialized." You ask what we think of his solution? Here is what I think:

For the past several months every journal has had an article bearing on this same subject. I have read these articles with interest, amusement, and, finally, indignation.

The suggestion of socializing anything in the United States is not compatible with our ideas about Democracy. It seems that German propaganda is not to die with the crushing of that monarchy. It seems that any man of ordinary intelligence could see, by the many object-lessons recently afforded, that, trying to socialize medicine, would not remedy the many defects, but, would create a medical Bolshevism.

In his article, Doctor Blanchard seems to be greatly concerned about the dear public, while, in the same breath, he makes the statement that the average income of the medical man is but $750 a year.

I wonder whether Doctor Blanchard's motives are philanthropic or selfish. I have a hunch that, if a few practitioners in this old U. S. A. would be content to *work* for a living, meaning, to quit the congested centers and go where there is room to expand, physically as well as mentally, it would take only one year or even less to relieve their financial stringency. Not long ago, I heard this remark, from one of these socialistic advocates: "I would rather be a lamp-post in New York than an oil-gusher in your mid-west country." I think that explains to some extent what ails the medical profession. These men would rather live in the lime-light of the ultrascientific than exert themeselves, as would be necessary to do, if they were located in some less favored community, where there are no pavements, no hospitals, no electricity, not anything in the way of conveniences.

I have talked to a great many medical men living in an environment such as just described, and not one of them finds any fault with the medical profession, not one of them is preaching socialistic medicine, not one among them but is content to be outside of the pale of such scientific environment, and last, yet, not least, not one of them earns annually less than $3,000 and some even as much as $11,000. We are not dominated by authorities out here, each man is a thinker, arrives at conclusions, makes his own diagnosis, prescribes his own therapy, and gets results. I am not speaking of test-tube results, at that.

Right here, I wish to compare socialized medicine with the historic system. During the recent influenza-epidemic, the mortality in the army was enormous. In civil practice, the percentage, as compared with the military one, was virtually nil. How do you account for this? The majority of the doctors were fresh from civil practice.

They had the advantage of a picked clientele, the advantage of sanitary and prophylactic conditions, hospitals, nurses, all this, coupled with authority. We all have our notions, and mine is, that individuality in the doctor was suppressed. The military physician was told to do a thing, and he did it. So many Grams per kilo was the rule, while, on the other hand, we civics treated the patient, not, the disease.

In conversation with a captain in the Medical Corps, in regard to their treatment of influenza, he said: "So many Grams of digitalis to the kilo-weight of the patient." When I asked for further treatment, he said, "That is sufficient." And he said that he was a convert. I suggested that acetylsalicylic acid was my main reliance, besides other medicines as indicated. He advised me to get away from aspirin, as it was a dangerous treatment. At that time, I had treated more than 300 patients, with a mortality of one-third of one percent. Surely, a "dangerous" treatment, when compared with the 10 to 20 percent of deaths reported from his camp!

Doctor Blanchard makes the statement in his article, that the recent epidemic was a disgrace to the medical profession, and he implies that socialized medicine would have prevented that. To my mind, those are strange deductions, when the epidemic visited the very places where medicine was socialized to a degree that would never be tolerated in a country with ideas such as we have about a Democracy. Furthermore, surgery, according to Blanchard's ideas, has opened the door to the different drugless cults—Christian Science, Chiropractic, and the rest. He failed to offer any argument as to how surgery could be responsible for such a calamity. The human mind is a very complex thing, and, I have no doubt that some men operate needlessly; still, in my experience, they are few and far between.

However, granting that such conditions do exist in surgery and that there are practitioners in Youngstown that do treat diabetes and venereal diseases with bread pills, that does not prove to me that socialized medicine would correct that evil. To my mind, the way to correct these faulty conditions is, to introduce a study of materia medica into the curriculum of the scientific schools of medicine and, if possible, (in the East), procure someone other than a drug-nihilist to teach that important branch. There would be no reason then for the administration of bread pills and other placebos.

The statement implied by Doctor Blanchard, that "the more kindly honest and straightforward a doctor is, the less he will have accumulated during ten or twenty years in practice," should, in my mind, be vigorously condemned as an outrageous insult to the medical profession. Business acumen need not necessarily be abrogated just because a man is kind and honest.

In another place, this statement appears: "After ten or twenty years, if he [the doctor] stays in the work, he must be competent and able to compete with his fellows." Right there, hinges the whole argument. We all admit that every day should and, in the vast majority of cases, does bring a man more near to perfection. Every time that he operates, he becomes more competent, every time that he treats or observes a case, he grows more efficient.

What stimulates him to become more efficient? Is it the interests of the patient desired? Yes. Is it the satisfaction of a job well done? Yes. Is it possible that he thinks of his competitor as assuming charge if he should not make good? YES, in capitals letters. So, you see, that, in all these instances, he does his best, while the patient receives the benefit.

Do you know personally any doctor that kept a patient in bed one minute longer than in his judgment was necessary? I do not. Do you think that socializing would offer the same inducement to the doctor to do his best as does competition? I, for one, do not.

Again, Doctor Blanchard makes this statement: "The financial or economic interests of the patient and physicians have nothing in common." . . . Is it not revolting to think that, the longer one is sick, the better off is the doctor? The fallacy of this argument is so apparent that it is wholly unnecessary even to comment upon the unjustness of the statement. No one but an intellectual myoptic would see any argument in such a statement.

People in general are not all fools. Don't you think that, if a doctor be inclined to parade in sheep's clothing, the general public would soon find him out

P. D. Q.? He would soon find himself running with the $750-pack, with no more sympathy extended than he deserves.

Again, he says, in substance: "My neighbor has a little girl with enlarged and diseased tonsils, who must become deaf soon, because of this unrelieved condition." However, it is improbable that Doctor Blanchard or any other real doctor would allow such a condition to continue.

You, doctor, are overenthusiastic in presenting your side of the argument. We won't swallow such dope. If you wish us to take you seriously, doctor, do not amuse us. Socializing medicine seems to represent to some medicos a panacea for every ill. It is like buying 6 bottles medicine for $5.00, guaranteed to cure anything, from cancer to consumption. It makes me think of a pun in Harry Lauder's monolog: "The less people know of a thing, the more they have to say."

Do you think for one minute that those of us who really are practicing medicine and making good "honestly and kindly," who have ideals and strive to attain them, who have a conscience and use it ever will submit to socialized medicine? If you do, you have another "think" coming.

Trying to socialize medicine, will produce results, yes, but, not the kind Doctor Blanchard hopes for.

No, we shall not be content to pay the bill while our more fortunate brethren in New York, Youngstown or any other town bask in the rays emanating from the ultra-scientific lights, and then holler because $750 won't quite meet the bills when presented by the butcher, landlord or tailor. The results would be medical Bolshevism.

F. W. Maxey.

Webber, Kans.

"MEDICINE SOCIALIZED"

Since comments on Doctor Blanchard's article on "socialized medicine" (May, p. 343) are in order, I wish to add my bit.

I have read Doctor Blanchard's contribution with much interest and, in fact, with amusement; in part, in a most solemn frame of mind. One of the former instances occurs on page 271 (April number), near the center of the second column, where he says: "The more kindly, ethically, and honestly he [the physician] plays his humble part, the poorer he is after ten or twenty years of service."

It is almost inconceivable that doctors could stay in the field ten or twenty years and be poorer than when they started; that is, any considerable number of them. There are poor collectors among the doctors, as in any other profession. Possibly, yes, probably, there are more poor collectors among the physicians than in other occupations; still, I believe that, if there could be taken a definite inventory, as it were, of physicians' financial conditions when they start and at the end of ten or twenty years, only a very small percentage would be worse off at the end.

However, this is not my chosen theme. I want to discuss more fully two points in that paper; namely: "What there is wrong with the system," and, secondly, "A word-picture of socialized medicine."

As to the medical system, we all agree that it is not perfect, as, indeed, nothing as yet devised by man is perfect. It is very probable that, in as much as man, himself, is imperfect, he will not be able to devise or institute any perfect systems of *anything*. It does not appear to me that it is a fault of the system that prevents a physician from being called in time to abort grave sickness or to operate before it is too late. Rather, it is the lack of education on the part of the laity—and this should not be put upon the physician entirely, although he should do his bit to aid in impressing upon the people the importance of this being done.

It is not always a matter of money that keeps people from calling the doctor. Many patients, particularly those requiring surgical attention, refuse to consult a doctor, because of the fear of being cut or hurt or because of the anesthetic or for some other reason. Is this, too, a fault of the system? Would free treatment eliminate this fear? I venture the statement that there are ten persons that put off a needed operation, because of fear, to one that hesitates by reason of the expense. There are thousands of patients, just like the little girl of the good Doctor's neighbor that have enlarged tonsils, and receive no treatment. Yet, the Doctor would have us believe that this is a fault of an "obsolete system." This same little girl most likely could have those tonsils removed, efficiently, at some dispensary or out-patient's

department of almost any hospital in her neighborhood. The offending glands could be removed by the Doctor himself, and the parents given to understand that they could pay for the service in weekly or monthly installments, provided that they do not want the free treatment at the hospital. The trouble is ignorance, on the part of those suffering, as to the dangers ahead. It is not the system.

For the sake of argument, however, suppose that it is the system. And, again, suppose that we apply "socialized medicine" as a substitute. If government control of medicine does not help the people more than it did or is doing by its control of the railroads, telegraph- and telephone-systems, then may the good Lord help the people!

It makes no difference what the system may be, unfortunately or fortunately (as you like) men must operate it. And, men are imperfect. They are susceptible to influence, and the men charged with the administration of our government are not immune from influence, Doctor Blanchard's faith in the president's cabinet notwithstanding. I repeat that placing a man or men in the cabinet does not remove them from politics or friendly ties and other disturbing influences. Hence, the same rotten system or one probably worse will burden us. Witness, for example, the scandals recently come to light. The railroads and the telegraph-lines are our most recent instances of cabinet-officers "socializing for the good of the people." Does the Doctor like the example? I confess, I do not.

Again, "they [doctors] would be appointed because of fitness for work, and those not able to qualify and not needed would have to enter some other business." We have had many illustrations of appointments for what would seem unfitness rather than for fitness, and this from the cabinet members, themselves, on down the line through the clerkships, this even with our fair-play civil-service examinations.

"Political partisanship should be entirely excluded from the department." Please do point out just how that would be possible, when the president has the appointing-power, I believe, and, he is always counseled and importuned by hundreds when appointments are to be made? If the men are to be elected, it is in no way better, for, here, again, it is the game of politics.

But, suppose that we could divorce this department from politics. Here comes the red-tape that seems an inseparable part of all governmentally operated departments. Consider how many lives were needlessly lost in this greatest of wars, because of red-tape that delayed this necessary thing or that?

No, I do not believe that Utopia could be reached by socializing the practice of medicine, nor do I see how we should be bettered by it (I do not means doctors, for, I feel sure that they would not be).

I can not see how Doctor Blanchard finds it shameful for the nation to have an epidemic of influenza such as we have just passed through. Does he or anyone else know what causes influenza, and what makes some epidemics more severe than others?

Now, no theories go! I want to know whether anybody knows definitely what caused that epidemic. I have not been able, thus far, to find in print mention of the specific cause of influenza. We believe (that means me, also) that there is some specific germ; still, who has marked it and proven it to be the one and only cause? Not a one! Then, how would socialized medicine prevent the germ's playing hide-and-seek with us? How would the system supply us with enough trained nurses and doctors in circumstances like those during the recent epidemic, when few homes remained uninvaded? Nursing, indeed, would have helped; but what numbers it would have taken, in, say, Philadelphia alone? Possibly a hundred thousand of them, in order to have one nurse everywhere that one was needed.

I suppose that socialized medicine would have found out either that the bug was on its way and would have killed it without knowing what it was or where it came from, or with what to fight it, or, else, have supplied us with the enormous number of nurses needed to be almost omnipresent! Well, maybe so, but, I once attended school in Jefferson City, Missouri, and that old slogan in vogue there still hangs around: Show me!

Now, as a matter of fact, when the influenza-epidemic started in this country, we had, in round numbers, 4,000,000 men under arms, and, with them, the most thorough medical organization that the world has ever seen or probably will see again. These medical men were selected "because of their fitness," physically and mentally. The surgeon-general was, to all intents and pur-

poses, a cabinet-member. He had a most able corps of assistants.

Now, with this medical corps as nearly perfectly organized as it was possible to make it and with the army of 4,000,000 men under perfect federal control, with conditions for isolation more nearly ideal than possibly could obtain for the country at large, with all of this perfect practical socialism, influenza was just as destructive in the various camps as it was among the civil population. The socialized physicians and the socialized army were just as much at the mercy of the epidemic as were we "boobs".

In the light of these facts, can it be seriously contended that socialized medicine will prevent epidemics? I do not believe that diseases ever will be entirely eradicated. It does not seem to be God's plan for such to be. Disease has its hold upon the lowest orders of plant-life and animal-life, as well as upon the highest orders organic creation.

We are just as much at sea today, concerning the true cause of some of our most common diseases, as we were in the days of Socrates. Who knows the cause of mumps, measles, whooping-cough, scarlet-fever, cancer? Who can cure any one of these common affections? Who will say that we can not cure them because of the system under which we practice? It is absurd. We can not cure them because we do not know what causes them and, hence, we do not know where to begin to prevent and treat them.

The best brains have been devoting years to the study of those diseases and have not arrived at anything definite. Is this also a fault of the system or is it in God's plan to keep some things obscure from human beings until He sees fit to let us in? Will socialized medicine make research-work any more nearly thorough than it is at the Rockefeller Institute, or at Johns Hopkins? To my mind (a small consideration, of course), what is needed is, more knowledge for physicians and the laity. The system will easily take care of itself.

"God or nature heals and the physician takes the fee," is one of the Doctor's dicta. Well, if man could heal every disease and prevent all diseases, what need should we have of God? If we could cure and keep everybody and keep them well for all time, there would be neither sickness nor deaths and we might go on living on earth forever. Is that God's plan?

We have done well and rendered humanity a service when we have relieved as much suffering and prevented as much as we possibly can. There are conditions that medical skill can not prevent nor cure, and these are not a few. There are very few, however, that can not be relieved. I utterly fail to see how socialization will help this state of affairs.

The present system of medical practice may be one of "dog eat dog"; however, the dogs will last longer eating each other than they will if they are turned into the lion's cage.

Like the good Doctor, I could go on with a lot of this combative argument, but, I already have made this much longer than I had intended.

Wm. J. Parks.

Asbury Park, N. J.

CINCHONIDINE SUPERIOR TO QUININE

Referring to the article, "Is Cinchonidine the Most Useful Alkaloid of Cinchona?" appearing in the June number of The Clinic, allow me to report some experience from my own practice.

In 1872, one year after my arrival in this country, I contracted malaria of a very severe quartan type. After unsuccessful treatment with 2-grain doses of quinine sulphate, as then was customary in Germany, an old physician recommended 10-grain doses, each, of quinine and of iron ferrocyanide. This dosage did break the chills, but, it caused a fearful bursting headache and made me nearly deaf.

This experience put me to thinking about big doses of quinine. In the second half of the seventies, I located in southeast Missouri, in a very malarial district. There I tried cinchona and cinchonidia and found them equally as effective as quinine, but, without the latter's severe effects upon the nervous system. I frequently combined cinchona sulphate with ammonium picrate, especially for men, and when considerable enlargement of the spleen was present, and cinchonidia sulphate with powdered rhubarb for women and children. I but seldom prescribed larger than 5-grain doses.

Whenever I prescribed quinine, I always selected the bisulphate or the hydrochlo-

ride, in solution or combined with antipyrin or acetanilid, or even in a shotgun-formula including arsenic, podophyllin, and strychnine. My patients never complained of disagreeable by-effects and the remedy always did the work, so that I was known as "a good doctor for chills".

Brother Cosmas, O. S. B.
Conception Abbey, Conception, Mo.

CHEMICAL REMOVAL OF THE EARLY, OR OPERABLE CANCEROUS BREAST

The rational surgical treatment of all forms of cancer should, so far as practicable, proceed upon the assumption that a wound freshly made in tissues adjacent to any cancerous focus is a wound *swarming* with pathogenic (germ-infected) cells. Further, that these are most powerfully active, virulent, and tenacious, in the presence of so favorable a culture-medium, as the living traumatized tissues of man, requiring nothing less than total eradication, so as to remove from the patient the very real danger of recurrence. We find it increasingly difficult to believe that this, so vital, complete eradication can, with desired uniformity or certainty, be accomplished by the customary surgical procedure.

The intelligence that wields the scapel can not, in any sense, with absolute certainty or precision, remove *all* the diseased tissue, together with *all* the specific pathogenic organisms, nor *all* the straggling tail ends of tumor-strands, *because of the manner of the traumatism.*

Traumatism, I grant, there must be in any method of removal of the cancerous breast. But, as compared with rapid extirpation with its uncertainties, and the utter lack of preparedness or defense on the part of contiguous structures—*what about a traumatism that proceeds so leisurely from without as to accomplish the destruction, in situ, of all affected tissues, meanwhile affording nature ample opportunity to "wall off" or to establish its own defenses from within by phagocytosis: two powerful forces cooperating and assuring for the infective organism insidious, unescapable annihilation, without at any time suddenly severing the continuity of living tissues, or, more concisely, opening fresh avenues* of infection?

Such is the *new* chemical method of removal that has gained so many victories in far-advanced cases that the conclusion becomes irresistible that it should, most surely, rescue the victims of the disease in the early, or operable, stage, for the reasons above enumerated. Furthermore, it is a fact that the chemical method is based upon a safe therapeutic principle, namely, the principle of nonexcision in malignant cases.

C.W. Strobell.
New York, N. Y.

IT CAN BE DONE!

"Somebody said that it couldn't be done,
But he, with a chuckle, replied
That 'maybe it couldn't' but he would be one
Who wouldn't say so till he'd tried.
So he buckled right in with the trace of a grin
On his face. If he worried he hid it.
He started to sing as he tackled the thing
That couldn't be done, and he did it.

"Somebody scoffed, 'Oh, you'll never do that,
At least no one ever has done it';
But he took off his coat and he took off his hat,
And the first thing he knew he'd begun it,
With the lift of his chin and a bit of a grin?
If any doubt rose he forbade it;
He started to sing as he tackled the thing
That couldn't be done, and he did it.

"There are thousands to tell you it couldn't be done,
There are thousands to prophesy failure;
There are thousands to point out to you, one by one,
The dangers that wait to assail you.
But just buckle in with a bit of a grin,
Then take off your coat and go to it.
Just start in to sing as you tackle the thing
That cannot be done, and you'll do it."

—"Evelyn," in the N. Y. Tribune.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

[*Continued from July issue, page* 524]

SAYS Christian A. Herter, in an address titled "Imagination and Idealism", as reproduced in *The Medical Sciences*: "There is a phase of imaginative thought and feeling that expresses itself in a strong desire to pursue ideal ends, even at the cost of the ordinary prizes of life—wealth, material power, and physical comfort. This idealism has been a very pronounced attribute of the great masters of medicine. In a noteworthy degree, they all have possessed it, and some, such as Helmholtz and Pasteur, have led lives of unpretentious, simple self-sacrifice in admirable harmony with the illustrious and superlative service they have rendered mankind. This idealism, while clearly a moral trait in the conventional sense, seems to be the offspring of the creative intellectual attitude and especially of an absorption in work, which leaves the mind neither time nor inclination to seek the petty advantages for which most men at some time in their lives find themselves struggling. For these reasons, indifference to vulgar aims and aloofness from commonplace interests are likely to be found where there is preoccupation in productive work of a high order, whether this be concerned with science or not. But, in the medical sciences, the rewards are so great, in the sense of personal satisfaction from superior achievement, that there is an especial and peculiarly potent incentive to repress those exaggerations of the self-preservative instinct which shows so insistently in the selfish conduct of commonplace persons."

To quote Dr. William Osler: "On account of the intimate personal nature of his work, the doctor, perhaps more than any other man, needs the higher education of which Plato speaks—that education in virtue, from youth upward, which enables a man eagerly to pursue perfection.

And, regarding the true physician, Sir J. Russel Reynolds has the following to say: "True sympathy will reveal much to you that science can not see; wherever there is life, there is your field of study; wherever there is suffering, there is your field of work; and truly to relieve its burden your spirit must be that of Him whose life was the perfect life—whose presence and word brought peace and health and into whose work in this world it is our highest aim and highest dignity to enter."

"Medicine", said Peter Merr Latham, "as it begins to touch upon higher interests, even the interests of life and death, should feel itself in alliance with higher, motives than any which can be thought to help and quicken its pursuit as a mere science." And, according to Doctor Stephen, "The vocation of the practicing physician is the spirit of Christianity in action."

One is tempted to quote profusely from these noble scientists. I am arguing for somewhat of their animus, their calm, yet, ardent idealism, and their reverence for truth. They have infused into their studies the lowliness and glad, yet, serious, rapture with which great souls ever are imbued. Theirs is the overmastering sense of beauty, the tremulous, loving awe, such as seized upon Fra Angelico, of whom Taine says: "He never drew nigh his theme without kneeling in prayer, never painted a Christ on the cross without his eyes being suffused with tears." There is solemnity in the lessons from the genius and affection of the past. The citations made here will suffice to show that the life they lived was one in which the feverish pursuit of the apparent did not absorb the tranquil love of ideal goodness and truth. These men were not ashamed to feel and to express their feelings.

Occasionally, even in our own days, I am glad to say, this fervor acquires mastery over the more arid treatment of scientific themes; and, to show that the poetry of nature still lives in the hearts of her votaries, we have only to turn to the warm

pages of many an author, chiefly English clergymen, to find idealism happily blended with material fact. Lindsay, Leighton, Crombrie, for example, together with scholars whose special labors have been devoted to recondite departments of natural research, possess for the student true scientific value. However, such instances of finer perception are, as a rule, wellnigh lost amid the mass of technicalities that cumber and congeal our textbooks and other contributions to science. It were easy to adduce instances of this barren method, and the future affords little prospect of reversion to the larger view of scholars whose correctness of observation perchance has long since been disproved, yet whose spirit survives in the noble heritage with which they have honored us.

Tuckerman says: "There is no such thing as science for the million," and in its practical sense the observation is, doubtless, true. (The idealist might also as truly assert that there is no such thing as poetry for the million.) Yet, in their separate spheres, the worlds of matter and ideas, each in its way, exercise a material and legitimate influence in shaping the thoughts and motives of mankind. The point of the apparent antithesis between the two forces rests upon a fallacy—the truth being that their operation, in its deeper development, is coördinate, and not to be rendered separative by narrower views.

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By so largely eliminating the ideal from modern research, we have reached a phase of mental progress as intellectually brilliant and commanding as it is spiritually deficient and obscure. Agnosticism and ennui are but the inevitable logic of a philosophic reasoning based only upon that which eye hath seen: hope, faith, and delight are the living expressions of the ideal which eye hath not seen. In the religious skepticism of the times, far subtler and more widespread than church or laity is prone to admit, we see the practical manifestation of too close an adherence to outward facts and phenomena.

Without degrading our larger vision by adopting the alarmistic theories not uncommon, in view of the existing state of society, it is not wholly idle to aver that, in some of its darker aspects, the average condition of thought among the people today resembles the cruel ignorance and the despair of the French "citoyens," prior to and succeeding the revolution of 1789—a blank, unimpressionable realism, to speak temperately, which has never ceased to infect the literature, the art, and the manners of this extraordinary nation. Contrast with their fatalism the steady advance of Teutonic philosophy, from which the impress of romanticism has not been excluded, notwithstanding the strain of adverse agencies—an autocratic government and an exact school of inquiry as rigid and fearless as any known anywhere else.

Here, in America, where liberty and license, impelled by unprecedented freedom of institutions, are ever struggling for the mastery, we can observe more closely the features of a contention, not so much between reverence and irreligion, virtue and vice, labor and capital, wealth and poverty, as between the underlying motives of thought and opinion of which these varied conditions are the visible result. Let no fond patriotism or platonic perversion of evidence disguise from us the melancholy truths that men, very many of them, are shockingly, yes, stupidly, sordid; that lying and deceit are far from being infrequent, and, while being constrained by the preponderance of honor in every community, still are productive of incalculable injury to the better feelings of the commonwealth.

A searching scrutiny of political history and of business and professional records will attest the justice or falsity of this open accusation. The saddest reflection is, that the corruption evident in legislative halls and in positions of trust, despite the facilities for publicity afforded by a vigilant press, is, by no means, all that goes on from day to day. How frequent, considering what is known, must there not be the peculations and dishonesty that never come to light! Look at it! A simple purchase often reveals the deadened sensibilities that haunt the till. Short weight, adulterations, the heinous processes of guile included in the practice of "dickering"—are we unacquainted with them! But, most disheartening, as it is most pathetic, is the tragedy concealed from public gaze within the terrors of a felon's cell. Even detestation of crime can not obliterate from our hearts a sense of pitying charity, recalling the long night of doom into whose shadow the honored and revered—jubilant youth and placid age—have walked with

broken, tremulous steps and memories seared with private agony and shame.

It is the irony of justice that her admonitions scarcely outlive their utterance and that the evils she would eradicate grow apace. It is, because they lie too deep for her to reach. They spring from complex sources and can be mitigated only by new and nobler standards of worth and success, a less shallow and delusive estimate of the value of worldly possessions and power, compared with riches of character, and a closer relationship with the ideal—forever fair, forever sweet and true!

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It is not wise to rehearse the trite reproaches, that our modern life is too elaborate, our intellectual progress too exciting, our wants too many, our resources of contentment too few. Our race is born to struggle and improvement. If we now cope with greater obstacles to advancement than came to the simpler lives of our forefathers, we have reached a far wider range of mental and moral vision than they possessed, and we are endued with stronger powers to rise. A thousand forms of beauty bid us to emulate the lives they should adorn, a thousand forms of art and culture beckon to peace. Our most fashionable vagaries have within them the elements of refinement and good taste.

No, it is not to minor considerations that we must look for the miasma that taints our moral atmosphere. Dress, bric-a-brac, polite accomplishments, social gayeties, and their like include much that appeals to the esthetic, the ideal faculty and are united with much that springs from the most innocent motives. Were the integrity, the commercial honor of mankind dependent upon those who often are taxed with frivolity and extravagent devotion to self-gratification and ease, it is safe to say that fewer derelictions from reputable aims and methods would occur than now is the case when vulgar pretension seeks to attain by ignoble means a power and station denied it by natural and fortuitous events.

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If the highest attribute that can grace the Creator's image be justice, surely, the most debasing characteristic of our species is envy, to which may be traced many a headlong course of folly and ruin. He only is to be envied who has never envied the lot of others, but, rests secure in the possession of those ornaments of mind and heart which, while related to the world, transport him, at will, to the region of ideal goodness and truth, whither no mean or ungentle thing can follow him.

This absence of contentment brings us to a vital shortcoming of current society, well expressed by a recent writer—a woman who has known men and women far better than they are wont to know themselves—and who says:

"The whole tendency of modern education is, to create an intense self-consciousness; and whoever is self-conscious has lost the charm of simplicity and has already become vulgar in manner. The most highbred persons are those in whom we find a perfect naturalness, an entire absence of self-consciousness. The whole influence of modern education is, to concentrate the mind of the child upon itself. As it grows up, this egotism becomes confirmed; you have at once an individual both self-absorbed and affected, both hard toward others and vain of itself."

As regards this tendency, the pursuit of personal comfort involved in otherwise harmless modes of life may be, in reality, reprehensible. Artificial meanness and habitual dissimulation doubtless mar much of our personal intercourse; still, it will not do to draw irrational inferences from comparatively isolated circles of society or special examples of weakness. The shallowness we deplore (and, it is shallowness to prefer the novel of the socalled "new school" to the masterpieces of Dickens and Scott; *vers de société* to Shakespeare; granite effigies to Greek Marbles; "symphonies in color" to Gainsboro and Sir Joshua), this fatality of taste, is but the symbol of that worship of materialism, miscalled realism, against which I am mildly inveighing. Not that one would wish to dogmatize concerning matters of honest opinion. Life, at least outward existence, is composed of an infinite chain of petty details, and a science of *things*, to be mastered, would require the allotment of an additional span to our years. Yet, to magnify the rank minutiæ is, to forget the heavens in an analysis of cosmic dust.

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If, in our literature, imagination often is cumbered with excessive portraiture of commonplace individuality, the reason is to be found in the simple truth, that we have at present no great writers of fiction, and few, if any, capable of producing so fine

a story as, for example, Ramona—a lofty, stirring book, written with a high purpose, bearing us onward with irresistible interest because of its ideal excellence and even though the theme is distracting. Each thoughtful reader knows his "hundred books"; however, the most comforting and peaceful of all, the book of nature, is seldom included in the list.

Our literary pabulum must, after all, be adapted to special mental digestion, and we are dietetic, omnivorous or selective readers, according to our separate appetites and intelligent physiques.

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This subject is introduced here merely as having an important bearing upon materialistic thought, of which our current literature in its more popular features is no mean factor. But, if we would shed more light upon this knowledge, turn we to a veritable record of the ideal, to the marvelous chronicle of La Manche's sorrowful knight—dear, battered, credulous Don Quixote. We have, all of us, perused with delight the strange adventures recorded, of this knight errant, and some of us have regarded this work of fiction in its deeper significance. In it, is the genius of Cervantes most manifest through the conflict of Ideal and Actual, its true motive, embodied in the nobler cavalier and his groveling squire—surnamed Panza, i. e. "paunch"—standing, like Hamlet and Horatio, for the opposing forces of thought and action, spirit and matter, dream and fact. No wonder that it has come down to us dignified by the homage of universal admiration, for, it was conceived and executed in a sympathy as human as struggles and pathos are; and the vicissitudes of its pages, unlike the mocking irony of Candide, made glorious by undaunted hope, are but the analogies of all our troubles and aspirations.

What narrative of mortal disenchantment could be more touching than this history of soul lifted above the earth, ever ennobled, ever courageous and tender, ever wrung by the sad realization that the pitiless world of practical affairs environs and restricts its loftiest, brightest desires! This was such a knight as those whom good King Arthur taught

To ride abroad, redressing human wrongs,
To speak no slander, no, nor listen to it,
To lead sweet lives in purest chastity,
To love one maiden only, cleave to her
And worship her by years of noble deeds,
Until they won her; for, indeed, I know
Of no more subtle master under heaven
Than is the maiden passion for a maid,
Not only to keep down the base in man,
But, to teach high thought and amiable words
And courtliness, and the desire for fame
And love of truth and all that makes a man.

It would be difficult to evolve from the ordinary stature of manhood today a type of heroism so ideal as this. In the original, this masterpiece of Cervantes is distinguished for rare charm of diction, together with a delicacy of feeling and power of original expression unsurpassed. There is also in the hero's reflections a philosophical scope, approached by Gil Blas, which renders this creation a study of absorbing interest. Yet, in any language, the greatness of the work must appear and to all minds with any power of thought it must convey some lesson of courage, courtesy, and honor.

"No man can be a hero to his valet," said Mme. Cornuel; and Hegel added, "not, because the hero is not a hero, but because the valet is a valet." It might be said of our infatuated knight that it was not his fault that the windmill proved to be no gallant adversary, but, only a poor mechanical barrier to his exalted zeal. The chivalric sentiment, surviving, even triumphing over every defeat dealt by earth foes, was no less sublime in its sacrifice because the object of his deluded imagination could not respond to his enthusiasm. Inspired by all that could grace the annals of knight-errantry, he sallied forth to find what the world at large scarce understands and for which there is no earthly guerdon. Nevertheless, he rose, even as other champions of ideal virtue have risen, over strife. Posterity has made his name a synonym for rash endeavor, nevertheless, still he shines for us in the pathetic earnestness of his faith, his superhuman ardor, his proud, yet, patient resignation to fate. If Cervantes "smiled away the chivalry of Spain," far more did he weep away mankind's dull mockery of fruitless longing. Let us read his book anew, remembering that Cervantes, too, had lived and suffered, yes, had known the harsh irony of earthly vicissitudes and the poverty of public applause.

[*To be continued.*]

Among the Books

JACOBY AND JACOBY: "ELECTRICITY IN MEDICINE"

Electricity in Medicine. A Practical Exposition of the Methods and Use of Electricity in the Treatment of Disease, Comprising Electrophysics, Apparatus, Electrophysiology and Electropathology, Electrodiagnosis and Electroprognosis, General Electrotherapeutics and Special Electrotherapeutics. By George W. Jacoby, M. D. and J. Ralph Jacoby. With 262 Illustrations. Philadelphia: P. Blakiston's Son and Company. 1919. Price, $5.00.

This text book, we are informed, has grown out of a contribution on the subject that had been written for S. Solis Cohen: "System of Physiologic Therapeutics" which appeared in 1910. A comparison of the chapters on medical electricity in that work and in the present volume is interesting as it illustrates the many changes that have taken place in the use of electricity in medicine.

The authors have made a praiseworthy attempt—successfully, we believe—to present an explanation of the electric phenomena with the aid of the electron theory. While it is very true that medical men in general have a distaste for all mathematical demonstrations and technical explanations, these often are unavoidable and it is then acceptable to have them presented in such a manner that they can be understood without far-reaching special technical knowledge and study. Especially have the authors attempted to unify the matter of nomenclature in which many complications are to be noted, both authors and manufacturers applying different meanings to certain terms.

The authors insist that the title of their book "Electricity in Medicine" was chosen deliberately and restrictively, in contradistinction to electricity in surgery, and they found it best to exclude in this volume nearly all surgical references, not even going very deeply into the subject of x-ray and phototherapy. Accordingly, the methods of employing electricity for diagnosis, prognosis and therapeutics that are discussed here are those of the other modalities and these are treated in such a manner that "Jacoby, Electricity in Medicine" undoubtedly will be accepted as one of the foremost textbooks on the subject.

JONES: "MEDICIAL ELECTRICITY"

Medical Electricity. A Practical Handbook For Students and Practitioners. By H. Lewis Jones, M. A., M. D. Seventh Edition. Revised and edited by Lullum Wood Bathurst, M. D. With Illustrations. Philadelphia: P. Blakiston's Son & Company. 1918. Price $4.50.

This latest edition of Doctor Jones' textbook of medical electricity carries out the further developments in electrotherapeutics which, before his death, Doctor Jones had foreshadowed in earlier publications. He was one of the pioneers and foremost investigators in the employment of electricity for therapeutic purposes and did much to establish this mode of healing on a firm and scientific foundation.

The present edition contains, of new material, an account of progress in ionic medication and in the employment of diathermy. Both are exceedingly interesting and useful.

Those chapters that are devoted to the application of electric treatment in special diseases are of great service to the physician.

DUNTON: "RECONSTRUCTION THERAPY"

Reconstruction Therapy. By William Rush Dunton, Jr., M. D. Illustrated. Philadelphia and London: The W. B. Saunders Company. 1919. Price $1.50.

This is a remarkably interesting account of experiences in occupational therapy, a mode of treatment that has come to occupy the center of attention in many ways on

account of the numerous instances where soldiers on recovering from war casualties need special assistance in order to "come back." Doctor Dunton informs us, in the introduction to his little book, that occupational therapy probably was applied deliberately first by Professor Pinel to whom the insane at the Salpetrière and in other French asylums owed so much. Occupational therapy, we learn, was employed especially in the treatment of the mentally deranged and it is only in recent years that it has been utilized more frequently in that large class of cases that used to be called "neurasthenics,' while patients afflicted with exceedingly chronic diseases, especially the tuberculous and, of course, the blind, have benefitted from it in a wonderful degree.

Occupational therapy, or reconstruction therapy, is something that physicians should familiarize themselves with, and Doctor Dunton's little volume offers splendid material for study. We can recommend it cordially, not only for its intrinsic value but also because it contains an extensive bibliography on the subject for the benefit of those who are specially interested in it.

SCRIPTURE AND JACKSON: "SPEECH DISORDERS"

A Manual of Exercises for the Correction of Speech Disorders. By May Kirk Scripture, B. A., and Eugene Jackson, B. A. Illustrated. Philadelphia: F. A. Davis Company. 1919. Price $2.00.

Young men spend much thought on the shape of their collars and the shade of their ties, and young women on the thousand and one little things that go to make up an attractive appearance; but, are they always so particular about the shapes and shades of their vowels or consonants, that their speech may be as attractive as their persons? Slovenly language should no more be accepted than slovenly manners.

It is undoubtedy proper that boards of education in many large cities are making the much needed advance of appointing directors of speech improvement in the public schools. This and various other movements permit us to hope that in course of time the English speaking nations will give up the reprehensible habit of indulging in carelessness and frequent slurring in expressions, such as, for instance, "cer'nly" and "moun'n" for "certainly" and "mountain." Indeed, it is not only those unfortunates afflicted with stammering who are in need of correction of their speech disorders. Most of us might properly take a few lessons and subject ourselves to a much needed impetus in the direction of paying closer attention to our habits of speech.

The manual before us is the second volume of a series, the first of which was devoted to definitions of the defects of speech, their etiology, diagnosis and treatment. The present volume contains material for exercises designed to overcome speech irregularities, and is to be utilized by both teacher and pupil. This topic is one that merits the interest of physicians as well as of teachers and others.

THE WAR NUMBER OF "AMERICAN MEDICINE"

The special war-number of *American Medicine*, which is the June-issue, forms a splendid brochure of 135 pages, to which a great many of the leaders in military medicine, from the secretaries of war and of the navy and, from the surgeons-general of the army and navy down, contributed freely. The articles give a very good idea of the work accomplished by medical men during the great war. They also deal with the great problems of reconstruction and of rehabilitation confronting the soldiers and sailors. Quite incidentally, and, as an afterthought, as it were, the rehabilitation of medical men, themselves, in civilian practice also is referred to.

The editorials of that number are, as usual, full of thought-stimulating remarks. We know few medical journals the editorials of which equal in quality those of *American Medicine*. Altogether, this number is greatly worth while and is to be commended.

KEITH: "CASE-TAKING"

Clinical Case-Taking. An introduction to Elementary Clinical Medicine. By Robert D. Keith, M. A., M. D. New York: Paul B. Hoeber. 1919. Price $1.50.

This little book contains a useful guide for the student and the young practitioner on how to proceed in the examination of patients and in the investigation of cases. The schedules outlined for the purpose, not

only of general examination but also of investigating abnormalities of the special organs and systems (circulatory system, respiratory system, and so on), are very acceptable. This little book is useful not only for students but also for physicians of experience.

KAVIBHUSHANA: "ATREYA SCHOOL OF MEDICINE"

An Account of the Principle Works of The Atreya School of Medicine, With Their Chronology. By Kaviraj Biraja Charan Gupta Kavibhushana. Published by P. S. Gupta, 44 Beadon Street, Calcutta. 1917.

This is a reprint of a paper that discusses critically the Ayurvedic literature and, therefore, will appeal to those medical historians whose studies have carried them back to Hindu and Sanskrit writings. We are told that the scholarly discussions of the author are very meritorious. Unfortunately, the Reviewer never has been in a position to indulge his taste for original study in that direction.

REDER: "TREATMENT OF ANGIOMATA"

The Treatment of Cavernous and Plexiform Angiomata by the Injection of Boiling Water (Wyeth Method). By Francis Reder, M. D. Illustrated. St. Louis: C. V. Mosby Company. 1918. Price $1.50.

This little monograph contains a reprint of the original article of the author, appearing in *Surgery, Gynecology and Obstetrics,* nearly three years ago, on the method of treating vascular tumors by the injection of boiling water instead of with the knife. This is a method of removing these annoying and defacing stigmas without the formation of objectionable scars, and it was originally practiced by Dr. John A. Wyeth.

"THE MEDICAL CLINICS OF NORTH AMERICA"

The January issue of *The Medical Clinics of North America* is a New York number, and contains reports of clinics held in the Post-Graduate Hospital (Dr. S. W. Bandler), in the Neurological Institute (Dr. Walter Timme), the Presbyterian Hospital, Mt. Sinai Hospital, and others. Among the subjects, we particularly notice that of sterility in women, with special refence to endocrine-treatment. Another clinic deals with a new pluriglandular compensatory syndrome. The modern treatment of diabetes mellitus is discussed by Doctor Geyelin, and the local evidences of tonsillar involvement in the causation of distant or systemic diseases by Doctor Bullowa.

This number of *The Medical Clinics of North America* is No. 4 of Volume 2, and contains almost 300 pages.

The "Boston Number" of *The Medical Clinics of North America* (March, 1919) is the fifth number of Volume 2 of that excellent publication. Among the clinicians that have contributed to it there are several well-known men, notably Dr. Henry A. Christian, Dr. John Lovett Morse ("infantile scurvy"), Dr. John B. Hawes 2nd ("tuberculosis and influenza"), Dr. Lewis Webb Hill ("nephritis in children"), Dr. M. J. Rosenau ("ptomaine-poisoning"); besides many others.

Dr. Charles J. White discusses some common errors in dermatological diagnosis and treatment, which will repay careful study. Doctor Christian makes use of the highly instructive case-history method, his contribution being arranged in the form of a conversation with the students that have charge of the cases presented. This method is a very efficient one, serving, as it does, to fix the salient points in the minds of the readers.

The Medical Clinics of North America is published bi-monthly, by The W. B. Saunders Company, Philadelphia, at the price of $10.00 per year.

WHITMAN: "ORTHOPAEDIC SURGERY"

A Treatise on Orthopaedic Surgery. By Royal Whitman, M. D., Sixth Edition, thoroughly revised. Illustrated with 767 engravings. Philadelphia and New York: Lea & Febiger. 1919. Price, $7.00.

One of the outstanding features of surgical practice, as influenced by the war, is the remarkable development of orthopedics which is "conservative" surgery in its best aspects.

The reconstruction and rehabilitation of wounded soldiers has been undertaken to a degree that had hardly been dreamed of

in former years, and it is orthopedics to which the advantages of all these new and valuable experiences are accruing.

The successive editions of Doctor Whitman's "Orthopaedic Surgery" afford an interesting history of the development of this branch of surgical practice, and it is fitting that the most notable change in this latest edition is found in the final chapter, that of military orthopedics and the development of practical reconstruction. Medical men interested in this field will find Whitman's book to be an acceptable guide.

JACKSON: "EXPERIMENTAL PHARMACOLOGY"

Experimental Pharmacology. By Dennis E. Jackson, Ph. D., M. D. With 390 Original Illustrations, Including 24 Full-Page Color-Plates. St. Louis: The C. V. Mosby Company. 1917. Price, $4.00.

The author of this laboratory-manual of experimental pharmacology has continually kept in mind the needs of the instructor as well as of the student. He has endeavored to place in the hands of each student a manual giving detailed, specific instructions of each experiment that it will be necessary to perform, and in this he has succeeded admirably. The necessity of having a definite outline to follow, in order that the approach from the simple to the complex may be attained as systematically as possible and with the greatest benefit to the pupil, has been realized by all instructors.

Pharmacology is taught during the first years in the curriculums of most medical schools, and, as a consequence, the pupils lack many basic principles of neurology, physiology, and other disciplines. In the present manual, cognizance is taken of this fact, and many useful dissertations relative to these subjects have been introduced. The repetition in this book—and there is a good deal of that—is done, with the object of impressing upon the mind of the student and to recall important basic principles concerning allied subjects.

The book is divided into two parts, Part I, devoted to the objective study of a great many drugs, while Part II gives a great deal of valuable information to the instructor relative to the large amount of mechanical work connected with this subject.

The experiments are arranged in a systematic order, the simpler tests being given first, and the individual action of each drug is studied in its various phases. A great deal of space is devoted to general and local anesthetics. It would have been desirable to have included an outline showing the student its direct application to clinical work, inasmuch as pharmacology is planned with a view to its future actual application to clinical cases. The later experiments concern individual drugs and their actions.

The numerous illustrations introduced are most desirable in a book of this nature, for, many students, through seeing an excellent illustration, are greatly assisted in understanding the methods employed in a given experiment.

PAGE: "LOCATION OF STARTING AND LIGHTING SYSTEM FAULTS

Location of Starting and Lighting System Faults. By Victor W. Pagé. New York: The Norman W. Henley Publishing Co. Price 50 cents.

This is a large chart about 2x3 feet in size, showing pictures, diagrams of the various parts of the starting and lighting system of the modern automobile, together with descriptive notes explaining "troubles" showing the reader how to locate and correct them. It is just the kind of thing that the average man will like to stick up in his garage for ready reference in time of difficulty. It is well worth the 50 cents it costs, and we feel certain that many doctors will want to purchase a copy.

STALL: "WHAT A YOUNG MAN OUGHT TO KNOW"

What a Young Man Ought To Know. By Sylvanus Stall, D. D. New Revised Edition. Philadelphia: The Vir Publishing Company. Price $1.00.

This is a new revised edition of Doctor Stall's well-known guide to the young man of what he should know. The little volume has been available for more than a year and very fortunately so since it was placed at the disposal of soldiers and sailors who could not but benefit from its teachings. The series of books that have been either written or edited by Dr. Sylvanus Stall are well known, and can confidently be given into the hands of those for whom they are intended.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

"Typhoid-Vaccine for Pellagra."—Under query No. 6432, someone asks about the "latest cure for pellagra." I want to say that I am now giving all my pellagra-patients the typhoid-vaccine once a week for ten or twelve weeks. This, with the line of tonics and diet familiar to all CLINIC-readers, seems to be doing the work. I think this course is worth a trial for, it has not disappointed me once, after having tried it in several unusually stubborn cases.

PAUL PENISTON.

Newman, Ga.

Queries

QUERY 6439.—"Proctitis of Traumaitc Origin?" O. S., Missouri, has a patient who, several years ago, was accidently shot with a pistol. The bullet was imbedded in the coccyx, but, "cut the colon between the sigmoid flexure and the rectum. Since then, he has been subject to a catarrhal condition in that region." Our correspondent desires to know whether some bacterin would be likely to benefit him.

It is difficult for us to venture an opinion as to the probable efficacy of vaccines in the case described by you. However, if there is much discharge, or examination reveals an ulcerated or even only an eroded area, a proper bacterin might do some good. We must ask you to give us some idea about the conditions revealed by an examination. Also, it would be an excellent idea to submit, at the same time a specimen of the feces.

Just what are the symptoms? Is there any pain in the lower bowel: any evidence of stricture? Has the coccyx been removed? Is much scar-tissue in evidence? It also would be interesting to know the point of entrance of the bullet, which, we understand, was imbedded in the coccyx after cutting the intestine between the sigmoid and the rectal colon.

If you will give us such further light as you can, together with some idea of the patient's general health, age, and so on, we shall be in a better position to advise you intelligently.

QUERY 6440.—"Procaine in Eye-work." A. F. F., Michigan, wishes to be advised on the use of procaine in the eye—especially for the removal of foreign bodies.

One drop of a 5-percent solution of procaine produces absolute anesthesia of the conjunctiva, and permits the performance of all minor operations on the eye.

For the removal of foreign bodies, one or two minims of a 2-percent solution usually suffice. It is well to wait one full minute after the application of the solution, when, if there is much congestion, adrenalin may be added to the procaine. Some persons complain of a slight smarting sensation when the solution is introduced this, however, soon passes.

It should be remembered that the anesthesia secured from the use of procaine is not as prolonged as that which follows the application of cocaine.

QUERY 6441.—"Are Iodized Calcium and Calomel Incompatible?" J. C. M., Virginia, writes:

"Please, tell me whether iodized calcium and calomel can be given at the same time: also whether antipyrin is antagonistic to

iodized calcium. I often want to prescribe calomel and iodized calcium together."

Personally, we should refrain from such procedure, although some other physicians do not hesitate to combine the two drugs, sometimes thus continuing them for a prolonged period. We present a few chemical facts and leave you to form your own conclusions:

Mercurous chloride is oxidized to mercuric chloride by iodine. If there is present an iodide, as usually is the case, then the soluble mercuric iodide is formed. The reaction proceeds best in acid solution. Iodized calcium (calcidin) contains some free iodine. Moreover, in the stomach, it is believed, free iodine is liberated. Besides, more than probable it is that iodized calcium also contains excess iodides. For these reasons, we are disposed to assume that the combination in question is undesirable. After all, however, as we have so often said, reactions in the test tube and in the stomach may differ entirely.

As a matter of fact, this writer can not think of conditions in which it would be desirable to administer calomel and iodized calcium in association. Even where it is desirable to empty the alimentary canal promptly and, at the same time, secure the action of iodized-calcium, as, for instance, in croup, we should get better results by prescribing an enema and an effective dose of castor-oil, and giving the iodized calcium in small, repeated doses, then, after its effect has been secured, administering whatever calomel may seem called for.

We should not give antipyrin in combination with iodized calcium, because these drugs are distinctly antagonistic. As you may be aware, the addition of antipyrin to tincture of iodine forms an insoluble precipitate. Just what changes may occur in the stomach, it is rather difficult to state; however, experience has demonstrated that considerable gastric irritation may result.

Query 6442.—"Loss of Hair Following Influenza." S. A. L., Missouri, wishes to know how to prevent falling out of the hair as caused by influenza, adding that "nearly all those that had the disease (especially women) are losing their hair."

Loss of the hair following an attack of influenza is not particularly controlled by any treatment known to the present writer. As you are aware, in the treatment of loss of hair, not alone the condition of the scalp, but, the patient's general health must be considered; and, since we do not as yet understand either the exact cause of influenza or the changes in the body-chemistry produced thereby, it is not easy to outline an effective treatment.

This writer recently brought through a severe attack of influenza two children, one five and one seven years old, and both of them are now, as their mother expressed it, "losing their hair by the handful." They are being submitted to the following treatment, which, in other cases, has proven reasonably satisfactory: Give arsenates of quinine, iron, and strychnine, with nuclein, three times daily after meals. Thoroughly wash the scalp, every second night, with carbenzol or a good tar-soap, and, the next morning, a stimulating lotion consisting of tincture of cantharides, dr. 1; tincture of capsicum, min. 20; castor-oil, oz. 1; alcohol to make 4 oz. is rubbed lightly into the scalp with the fingertips or a small pledget of cotton. Unless the scalp is particularly sensitive, the proportion of cantharides and capsicum may be slightly increased. If, for any reason, castor-oil is objectionable, bay-rum may be substituted for it and the alcohol.

The scalp should, of course, be exposed to the sunlight and air as much as possible. Also gentle massage unquestionably is beneficial. We hope that you will favor us with a report of the results obtained with this procedure.

Query 6443.—"Fracture of Clavicle." E. S., Oklahoma, asks: "How would you proceed to replace and hold in place a broken clavicle?"

You are well aware, doctor, that such fractures may be complete or incomplete, and, that, if the latter, the deformity is not marked. When the fracture is complete, the indications are: to relax the sterno-cleido-mastoid muscle, to prevent the weight of the arm on the injured side from dragging down the outer segment and, by fixation of the scapula, to carry the attached outer segment outward and forward.

In ordinary cases, proceed as follows: place the patient upon his back on a firm mattress, with a low pillow under his head; secure the arm on the injured side to the chest by means of a few circular turns of a bandage passed around the arm and

thorax. If the patient can remain in bed for two or three weeks, nothing further is necessary, as, in this position, union usually is sufficiently firm to allow him, at the end of that time, to go about with the arm bound to the side or carried in a sling.

Sayre's dressing consists in applying two strips of adhesive plaster 3½ inches wide and 2 yards in length. One strip is looped around the arm, just below the axilla, and pinned or sewed, with the loop sufficiently open so as not to impede the circulation in the arm, which latter then is drawn downward and backward until the clavicular portion of the pectoralis major is sufficiently stretched to overcome the action of the sterno-cleido-mastoid muscle, in this way drawing the sternal fragment of the clavicle down to its place. The plaster strip is then carried completely around the body and pinned or stitched to itself on the back. The end of the other strip is applied in front of the shoulder on the *sound side* and thence passed over the top of the shoulder, diagonally across the back, in under the elbow, and diagonally across the chest to the point of starting, where it is secured by means of pinning or sewing. A slit should be made in this strip to receive the point of the elbow. Do not forget that, before the elbow is secured with the plaster, it should be pressed well forward and inward. Of course, the fracture must be reduced properly.

This has been this writer's favorite method of controlling fractures of the clavicle; however, Velpeau's bandage is equally serviceable.

QUERY 6444.—"Treatment of Sinusitis." A. C., Oklahoma, writes: "I have a patient who had an infection of the frontal sinus. The case was a very aggravating one, there being no way to get drainage, except by operative measures and, this was not to my liking. Eight doctors tried their best to give helpful advice. One suggested that I stand the patient on his head and then to instil 2-percent cocaine solution into his nose. This, after a time, indeed, did open up the sinus, so that we got drainage and the man got well. I added adrenalin to the cocaine, but, it has occurred to me that the better way would have been first to have introduced the adrenalin, so as to open the sinus, and then to use chlorazene. However, I administered the pneumococcus combined-vaccine with what I considered wonderful result.

"I now have several patients with ethmoid involvement, one of them probably having some sphenoid involvement, and I am convinced that my medical treatment could be improved upon."

We regret to say that the medical treatment of sinusitis is not as effective as one might wish.

The indications are, of course, to facilitate discharge and soothe pain. In the acute stage, rest in bed should be ordered, moist compresses applied, and nasal inhalations of mentholized steam for five or six minutes made every hour. Antiseptic gargles must be frequently employed. You will find spraying the nares and nasopharynx with a 1-percent solution of dichloramine-T in chlorcosane the most effective procedure. The use of a nasal douche during the acute stage is useless, if not dangerous, for the simple reason that it may wash the pus into the other cavities or the middle-ear. Sprays of adrenalin or cocaine (not more than 1 or 1½ percent) will, of course, reduce the congested turbinals and facilitate discharge.

Sondermann's suction-apparatus sometimes proves useful; its action may be imitated by the patient compressing his nostrils and inflating the lungs so as to exhaust the air from the nasopharynx.

Where the symptoms are severe or the case is prolonged, operative interference is necessary; in fact, in all these cases, the patient should receive the attention of an experienced rhinolaryngologist.

An autogenous bacterin, while providing adequate drainage, often proves curative.

You will find the treatment of sinusitis and ethmoiditis thoroughly considered in Thomson's "Diseases of the Nose and Throat."

QUERY 6445.—"Treatment of Chronic Proctitis." L. G. H., Missouri, asks for an outline of the effective treatment of proctitis. He writes: "There are neither piles, ulcers, nor constipation; the rectum is in a lax and dilated condition. This may be caused by his formerly using enemas too often. His general health is good. Nitrate of silver enemas aggravate the condition."

As you are aware, chronic proctitis sometimes proves a difficult condition to treat. You say that the patient in question is not constipated, has no ulcers and no hemorr-

hoids; that his rectum is dilated. We assume this to mean that, while the rectal ampulla is dilated, the sphincters themselves are contracted. In just such cases, forced dilatation proves extremely beneficial.

Local sedation is essential and any pruritus (usually a troublesome complication) should be controlled.

Ichthyol suppositories or ichthyol ointment may advantageously be introduced, and zinc-oxide and creolin ointment (zinc oxide, 20 parts; creolin, 2.75 parts; ceresin, 10 pars; petrolatum, enough to make 200 parts) be applied externally. Another excellent formula is this: Exsiccated alum, grs. 5; ichthyol, grs. 10; phenol, grs. 5; resin-ointment base, enough to make oz. 1.

The present writer has obtained good results in some very intractable cases by injecting just within the internal sphincter thymol iodide in petrolatum.

Invariably it is essential to secure perfect cleanliness of the parts. Careful bathing, with soap and water, several times daily, should be ordered.

Internally, the patient may receive, with advantage, hydrastoid and hamameloid, and reasonably full doses of brucine.

Should the ointments not afford relief, the following lotion may give excellent results: Phenol, 1 part; alcohol, 3 parts; chloral hydrate, 10 parts; water, 6 parts.

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Query 6446.—"Swelling of Glands Following Administration of Iodine." D. F. H., Massachusetts, asks: "What is the antidote for the swelling of the submaxillary glands from the use of iodized calcium? This is an idiosyncrasy for all iodine preparations."

The condition declared by you to follow the administration of iodized calcium and every other iodine-bearing preparation is but seldom observed. It is true that the glandular system is more or less affected by iodine and susceptible patients receiving the drug may experience increased salivary secretion. However, in this writer's many years of practice, he does not recall having seen a swelling of the glands to occur after the administration of medicinal doses of iodized calcium.

Thus, it seems that, the only rational procedure will be, to stop the use of all iodine-therapy and to prescribe, instead, phytolaccoid in rather full dosage for a week or ten days. Thorough elimination, preferably by the use of salines, also is desirable.

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Query 6447.—"Vesication in Cellulitis." R. W. C., New Jersey, states that, among the men working in a large packing-house, he has "many cases of infection simulating a superficial cellulitis, or, a condition that might be termed 'butcher's erysipeloid'; the trouble being caused by a saprophytic organism. On two occasions, men, through home treatment, accidentally caused blisters on the site of this erysipeloid." He observed that the subsequent drainage promptly improved the condition and asks: "Can you suggest anything that will cause a serous exudation just beneath the skin when applied to the conditions in question?"

With the exception of euphorbia and croton-oil, we are unfamiliar with any agents that would safely produce a serous exudation just beneath the skin; but, as you are aware, in the great majority of cases, even these drugs, especially if an inflamed condition of the parts be present, will cause very distinct vesication.

Considering your experience, we should be inclined to try the deliberate production of vesication, opening the blisters in the usual way and thus securing drainage. To produce a satisfactory blister, we have, in the writer's estimation, no more effective agent than cantharides, and this we, most certainly, should try.

The American Journal of
CLINICAL MEDICINE
Dependable Therapeutic Fact for Daily Use

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Influenza: Will It Break Out Again?

LAST spring, after the influenza-epidemic had gradually died out, the opinion was expressed by many physicians that a recurrence of the epidemic would take place this coming winter and, perhaps, during several winters to come. This is in accordance with observations made during the great epidemics, notably those of 1867 and of 1889 to 1895.

Unfortunately, this last epidemic of a disease that, by common consent, has been designated influenza, bore the characteristics of influenza only clinically. Etiologically, it was found that the bacteriology as also the pathology of the disease varied materially in the same localities, and that they differed in different locations. In consequence, there is absolutely no agreement among laboratory-workers concerning the actual causative virus of the disease.

To a certain extent, this reflects unfavorably upon the etiologic or specific treatment, both curative and preventive, it being necessary to select several germs for the production of bacterins, as E. C. Rosenow has done. This investigator prepared a bacterin from the bacteria found in the expectorations of numbers of influenza-patients. Fortunately, there is ample reason to accept the claim that it has been possible, by means of the influenza-pneumococcus-combined bacterin according to Rosenow, to protect persons definitely against the acquirement of influenza to which they individually have been exposed.

According to various reports, the same vaccine, in smaller doses, has been found useful curatively in the actual disease.

Whatever may be the state of affairs, the probability that influenza will make its appearance again this coming winter must be viewed with serious apprehension, even though some of the factors that undoubtedly contribute to its great virulence no longer are active. Notably, the general nervous unrest and upset caused by the war have been allayed since the signing of the armistice last November. On the other hand, the just as serious social unrest that is being manifested by the constant, unjusti-

fied strikes, by race-riots, and by the constantly increasing cost of living cooperate in bringing about a nerve-tension in the body politic that can not but reflect unfavorably upon the resistance of the individuals to disease.

No matter how we look upon the problem of influenza, it is up to physicians to get ready for the probable approaching return-visit of this destroyer of human life. The wise physician will go over his notebooks and revise his views and observations gathered last winter. He will study the journals and try to outline a method of treatment, both preventive and curative, that will afford a guide of action, so that he may be ready if and when the enemy makes its next onslaught. At the same time, the doctor will lay in a stock of those remedies that he has found useful, whether these be medicinal or biologic, and will hold himself in readiness, also bespeaking the services of nurses, trained and practical, upon whom he can depend to follow his directions.

Thus it will be possible for the individual physician to meet and counteract symptoms of illness in its very incipiency. After the lessons of last winter, the people may be trusted to call in a doctor as soon as the slightest suspicion of "flu" is justified. That being the case, the chances will be more favorable for a prompt and energetic fight against this dreaded disease.

Americanism is entirely an attitude of mind; it is the way we look at things that makes us Americans.

—Franklin K. Lane, Secretary of the Interior.

THE CONTROL OF DIPHTHERIA

On another page of this issue, (p. 642) we publish a series of questions and answers concerning the Schick test of immunity to diphtheria and a method of producing an immunity against acquiring this dreaded disease. The information is copied from the recent issue of the *Monthly Bulletin* of the Department of Public Health and Charities of the city of Philadelphia.

The Schick test was proposed a few years ago by Schick who, unless memory fails us, was a pupil of Professor von Pirquet, the originator of the cutaneous tuberculin test and, therefore, of the anaphylactic skin reactions in general. The problem was investigated with great care, especially by Dr. William H. Park, of New York, and also by other leading students in immunity.

By means of this slight operation, it is possible to determine in each individual case whether or not a subject is susceptible to diphtheria and, in case of a positive reaction, an immunity can be produced by the suitable administration of the toxin-antitoxin mixture devised for the purpose. In this way, the frequency of diphtheria is diminished materially and gradually the people can be rendered immune to this disease—by deliberate immunization wherever necessary—in the same manner as people now are kept immune to smallpox by deliberate vaccination.

Physicians are urged to familiarize themselves with this reaction, the technic of which is very simple. It should be easy enough to convince the parents of children of the immense value of the test and also of its reliability.

THE TREATMENT OF DRUG-ADDICTION

In its issue for July 18, *Public Health Reports* publishes an interesting and valuable discussion of the subject referred to in the title. It is pointed out that the medical profession should be advised, at least, to the extent of aiding its members to determine what does and what does not constitute legitimate professional practice concerning the treatment of narcotic-drug addiction, since the United States Supreme Court has decided that narcotic drugs may not be prescribed or dispensed to an addict, except for the purpose of curing; and it is important that physicians should understand to what extent and in what manner the legitimacy of the recognized methods of curative treatment is affected by recent court rulings.

In accordance with actual circumstances, all methods of curative treatment are divided into two broad classes: the "ambulatory" and the "institutional." The ambulatory treatment may be defined as any treatment in which narcotic drugs are prescribed or dispensed to a patient for self-administration, so that he has control and possession of the drugs and is physicaliy free to use them in any manner he desires, regardless of the physician's instructions. The institutional treatment may be defined as any treatment in which narcotic drugs,

if used at all, are administered by a physician or by a nurse under a physician's direction.

The article in *Public Health Reports* referred to shows that the purposes of the Harrison Law are fully satisfied under the institutional mode of treatment, because then nobody but the physician, who possesses and has paid for the license to dispense narcotic drugs, administers the individual doses to the patients. On the other hand, the ambulatory treatment readily lends itself to abuse by unscrupulous physicians and, even when the ambulatory treatment is administered conscientiously, as a matter of fact, genuine cures have rarely been effected by it. Competent authorities, therefore, feel justified in advising against the ambulatory method of treatment; and, incidentally, it has always been the conviction of CLINICAL MEDICINE that, for the successful cure of drug-addiciton, the institutional care is more promising of definite and lasting results.

It is pointed out that the physician employing the ambulatory method of treatment must realize that he places himself in the power of his patients and that his good faith to a great extent becomes dependent upon theirs. Incidentally, if the patient is entrusted with a hypodermic outfit for the administration of the permitted amounts of the narcotic, the risk of abscess formation through lack of cleanliness is great. Moreover, serious communicable diseases have been transmitted through the common use of a needle by several patients. Finally, the ambulatory method of treatment does not give the physician an opportunity absolutely to control the amount administered at each dose and the intervals between doses and thus determine the minimum physiologic requirement of the patient.

Aside from the prescribing or dispensing of narcotics in the course of treating drug-addicts, Mr. A. D. Greenfield, the author of the article in *Public Health Reports*, points out that nothing in recent court-rulings affects the right of physicians to use these drugs in the treatment of diseases or pathological conditions other than drug-addiction, including the alleviation of pain. Since addiction may result incidentally to the taking of narcotics for alleviating pain, it may become a legitimate addiction, as contrasted with the illegitimate practice for which there is no justification. As regards the legitimate form of addiction, a quotation from *The Weekly Bulletin* of the New York City Health Department, for May 3, is relevant in this connection. It is as follows:

"Every physician must feel free to treat such cases in accordance with his own professional conscience and judgment, and no reputable physician should hesitate to do so. In this, as in all cases with which a physician has to deal, it is his duty to seek the underlying cause of the patient's condition and direct his treatment to the elimination of that, wherever practicable, rather than to the alleviation of symptoms; many cases of drug-addiction owe their origin to professional carelessness in this respect. But, where it is not possible to remove the cause and where its continuance renders necessary or desirable, in the practitioner's honest judgment, the use of morphine or other narcotic, he need not fear getting into legal difficulties by continuing its use, even though the patient be an addict. In fact, it is highly desirable that patients of this class be freely treated by reputable physicians, rather than be compelled to rely upon questionable sources for the relief to which they are rightfully entitled."

There is in every one of us, however educated and polished, a secret selfish, arrogant ego and there is in every one of us a real nobility. In this war I could see that there came out immediately the finer man and that better self we must keep alive.
—Franklin K. Lane, Secretary of the Interior.

INTERPRETATION OF THE HARRISON ACT

Public Health Reports for July 18 refers to a case decided in the United States Circuit Court of Appeals. According to this report, the defendant, a physician, issued to addicts prescriptions for narcotic drugs, to keep them supplied, and, not for the purpose of effecting a cure. He was indicted for unlawfully dispensing, distributing, and selling morphine sulphate. It was charged that the prescriptions were not issued "in the course of his professional practice only" and that there were no written orders on the prescribed form. The prescriptions were filled by different pharmacists, and, it being shown that there was no participation by the defendant in the different sales made by the pharmacists, the

court held that the mere issuance of the prescriptions by the defendant was not a sale or such dispensing or distribution as amounts to a sale.

We confess that this decision is puzzling, especially as an abstract of another case was published in the journal quoted (April 4, page 688), in which case the United States District Court for the western district of Pennsylvania decided that the giving of such prescriptions is a violation of the provisions of the Harrison Act. We are accustomed to have "doctors disagree;" but, what of the legal gentlemen?

IMPORTANT RULING UNDER THE FEDERAL ANTINARCOTIC LAW

The office of the Commissioner of Internal Revenue, Treasury Department, Washington, D. C., has sent the following information to the Collectors of Internal Revenue and to others concerned, which includes physicians, as it influences the latter materially:

"The ruling contained in T. D. 2200 of May, 11, 1915, permitting a practitioner to dispense or prescribe narcotic drugs in a quantity more than is necessary to meet the immediate needs of a patient is hereby revoked and the revocation shall be applicable in all cases whether a decreasing dosage is indicated or not.

"The Act of December 17, 1914, as amended by the Act of February 24, 1919, permits the furnishing of narcotic drugs by means of prescriptions issued by a practitioner for legitimate medical uses, but, the Supreme Court has held that an order for morphine issued to a habitual user thereof, not in the course of professional treatment in an attempted cure of the habit, but, *for the purpose of providing the user with morphine sufficient to keep him comfortable by maintaining his customary use* is not a prescription within the meaning and intent of the Act (U. S. v. Doremus, No. 367, October Term 1918, T. D. 2809).

"In view of this decision, the writer of such an order, the druggist who fills it, and a person obtaining drugs thereunder will all be regarded as guilty of violating the law."

The italics are ours and are used intentionally, so as to direct the attention of physicians to a ruling of the Supreme Court, which makes it a somewhat hazardous undertaking for any physician to engage in the treatment of a narcotic-addict.

According to this ruling, it is *illegal* to provide a drug-addict *with morphine sufficient to keep him comfortable by maintaining his customary use,* and, even though the ruling differentiates between such a dispensing of morphine and any measure taken *"in the course of professional treatment in an attempted cure of the habit",* it might be difficult in a test-case to establish beyond a reasonable doubt that any morphine dispensed, by the physician, to a morphine-user had been given in the course of treatment and (as the law provides) with suitable attention to the gradual reduction of the amount of morphine used.

The important point is, that physicians should be extremely careful to record every single dose of a narcotic drug that they may be dispensing and to keep detailed case-records wherever narcotics are employed. In cases involving the treatment of drug-addiction, these records should be minute and the physician should be in a position to show that he is steadily reducing the amount of morphine permitted his patient, and that he does not, under any circumstances, provide him "with morphine sufficient to 'keep him comfortable' by maintaining his customary use."

As we read the ruling, a constant, even though gradual, reduction of the accustomed drug, for the purpose of ultimate cure, does not fall under the ban of the law, while the continued dispensing of the same quantity of the narcotic certainly would do so.

Physicians will do well to adhere very closely to the letter of the antinarcotic-drug law, so as to save trouble. It will be much wiser to err on the safe side than to take chances. The best and safest place for the successful treatment of narcotic-drug addiction undoubtedly is, in a well conducted institution.

So far the law. But—how about those narcotic-addicts that come to the physician for relief and who can not possibly be sent to an institution for treatment? There are many such and, often, their distress is pitiful. In most cases in which the gradual-withdrawal treatment is at all applicable, it can be carried out very slowly; in the most favorable cases, in our experience, a

lessening of a given dose being possible only about from week to week. In the interim, those poor devils must have their dope if they are to live at least in reasonable comfort. As it is now, if the physician prescribes or dispenses sufficient quantities in this sense, he acts contrary to the law and is liable to prosecution.

While we admit, without hesitation, that regulation of the narcotic-drug traffic, including its prescribing and dispensing, is a step forward, we suggest that the Government, having taken this step of paternalistic legislation, should be consistent and logical. It should make provision for those addicts and incurable patients that can not, under ordinary circumstances, be provided for in some institution. Even a beneficent government does not possess the right to condemn any citizen to continued misery, unless by way of penalty for offense compelled. So, the addict, who is not necessarily a criminal, should be mercifully and adequately taken care of.

Just as there is no way by which the breath of life can be put into a man's body, once it has gone out, so there is no manner by which with all our wills, we can make an American out of a man who is not inspired by our ideals and there is no way by which we can make anyone feel that it is a blessed and splendid thing to be an American, unless we are ourselves aglow with the sacred fire, unless we interpret Americanism by our kindness, our courage, our generosity, our fairness.
—Franklin K. Lane, Secretary of the Interior.

THE TREATMENT OF TUBERCULOSIS

For some years the great and first maxim for the physician treating tuberculosis patients has been that "fresh air, food, and rest will cure the disease." To supply these factors, to insist upon it, that the tuberculosis patients rest and again rest, in the open air, and that they receive a plenty of wholesome and nutritious food, has been the fixed and established rule of sanatoria as well as of physicians in charge of this class of patients in private practice.

At the annual meeting of the Colorado state medical society, in September, 1918, Dr. S. W. Schaefer, of Colorado Springs, insisted upon absolute rest in bed for at least a month or six weeks, for every patient coming under treatment, regardless of the stage of the case, the temperature or the pulse. If the patient exhibits elevation of temperature or pulse, the bed-treatment is continued until no fever has been registered for at least one month and the pulse has improved in quality. In moderately advanced and far-advanced cases the patients often are kept in bed for several months after the temperature has returned to normal, they being permitted to go to the bathroom once a day for the purpose of emptying the bowels, while, being strictly confined in bed for the rest of the day, even being forbidden to talk or read, and encouraged not even to think.

To this absolute-rest treatment, it was objected, in the discussion, that very often sick working-men are made into healthy loafers by that procedure—a point that we believe to deserve greatest consideration. The present writer has observed many instances in which tuberculous people took to this *dolce far niente* phase of the "cure" like ducks to water, and ever after were so confoundedly solicitous for their little health that they permitted their families to support them in their inactivity fearing to do any work, even if requiring but moderate exertion, while superlatively willing to undergo all sorts of exertion at fishing and hunting and tramping.

Here, as in other conditions, the keynote of success, naturally, is individualization. Doctor Schaefer's plan, in general, indubitably is to be commended and adopted wholeheartedly, certainly for all tuberculous patients showing elevation of temperature (by which he means any temperature over 98.6° F.) or a rapid and weak pulse. We also quite agree with Doctor Schaefer when he insists that the rest-cure should be continued for a sufficiently long time to afford the affected lungs an opportunity to heal and until fibrous healing has been established. Nevertheless, we can not subscribe without qualification to his thesis that absolute inactivity should be insisted upon and persisted in in every case of that kind.

We are reminded of an interesting article contributed by Dr. Bayard T. Crane to *The Boston Medical and Surgical Journal* for July 17, on occupational therapy. Doctor Crane pleads for the addition, to existing methods of treatment of tuberculosis, of those that will more fully expand the scope of the treatment so as to help the individual patient, and in which the tem-

perament and peculiar characteristics of the individual will receive consideration. It is an attempt to instil into the treatment inspiring influences created by diversion, by occupation of mind, by stimulating the flagging interests, and reeducation of faith and self-confidence.

In Doctor Crane's observation, what he designates as "occupational therapy" has proved of sufficient value to be included as a remedial agent of considerable importance in institutions for the treatment of tuberculosis. While this is not effective in every case, without exception, about one-half of the patients can be expected to derive direct benefit. In some instances, even long-lasting fever-temperature has receded to normal as a direct result of the method. In many instances, occupational therapy served to curb the restlessness of certain patients cursed with "temperament".

Not infrequently, occupational therapy is educational along esthetic lines inciting a new remedial interest in the patient's life that well might become an avocation. In certain limits, it is restful, because it provides a change and helps to kill time. It makes a break in the treadmill of invalidism, and, by making out of the patient a creator, one that does things, it relieves him from the self-reproach of being a do-nothing and a parasite.

There are, indeed, many diseases in which occupational therapy might prove of invaluable service and in which it must prove especially serviceable through the psychological benefits accruing. The mentality of tuberculosis-patients usually is extremely labile and therefore the nerve-centers of vital processes, especially of fever, respiration and circulation, are constantly kept in an irritable condition. Without a doubt, if the mind of a great many of these patients can be set at rest, can be kept pleasanly occupied, a beneficial influence upon the body is sure to follow.

Thus, between the plan outlined by Dr. Schaefer and that described by Doctor Crane, both have their justification and both are valuable. While no generalizations are admissible, and, while it always must be insisted upon that each patient must be managed individually, according to his own personal peculiarities, it will be well for physicians having charge of tuberculous patients to keep in mind the necessity of rest, but, also, the necessity of tempering the tedium of rest, and its possible harmful consequences, whenever it is possible and whenever the safety of the patient will permit.

THE TUBERCULOSIS PROBLEM OF THE ARMY

During the organization and mobilization of our army, after the men had passed the examinations of the selective-service boards and had been inducted into the army, repeated reexaminations were made, in the camps, with a view to eliminating those who might be in danger of acquiring tuberculosis. This service was under the direction of Colonel Bushnell, to whom Dr. David C. Twichell (*Southwest Med.*, July) pays deserved tribute. He says that Colonel Bushnell in his wise handling of the army tuberculosis problem, due to his many years of experience and preparedness at Fort Bayard, carried through a program of thoroughness and far reaching effect second only in importance to that of the Surgeon General. The result was that some 10,000 cases of tuberculosis were detected and eliminated from the army and that, thus, there was no tuberculosis problem among our soldiers in France. As Colonel Bushnell says, the Canadian government estimates that each tuberculous soldier returned from Europe costs the government $5,000. If there had been no examinations held, those 10,000 patients would have been sent to Europe and then returned home at a cost of $5,000 each, making a total of $50,000,000.

THE WILL-O'-THE-WISP OF CLIMATIC TREATMENT

The benefit, almost specific, of "climate" in the treatment of pulmonary consumption has been an article of faith for ages. Already, in the Ayura Veda of Susruta and in the writings of Hippocrates, the advantages of climate were mentioned. The physicians of Rome were wont to send their consumptive patients to Egypt, as Pliny the younger says, not so much for the favorable Egyptian climate, but, because of the sea-voyage involved. Galen believed that the climate of high and dry places would serve to dry up the secretions, and thus it was throughout centu-

ries, up to most modern times, while to this day the merits of climate are firmly believed in by the laity and even by some physicians.

Since the nature of pulmonary consumption has become better understood and tuberculous disease has been made the object of intensive study, the views concerning the therapeutics of this malady, naturally, had to be materially modified. At the present day, rest, nutrition, and open-air comprise a trinity of treatment that is accepted as gospel, which thinking physicians observe with strict attention, that is to say, as to the individual requirements of their tuberculous patients—fortunately, for the latters' sake.

However, although great progress has been made, and while the actual value of the climatic factor in the treatment of tuberculosis is now evaluated far more correctly than ever before, it still happens all too often that this aid is invoked, for the benefit of individual patients, without proper discrimination. Many tuberculous patients are sent to climates supposedly beneficial, without arrangements having previously been made that they may be received in a sanatorium and without its having been made sure that they will have sufficient funds to take care of themselves, at least for a year, and to obtain proper medical and nursing-services.

Countless persons have been encouraged to go east, go west or south, or anywhere where the climate is believed to be especially favorable—sometimes with the inhuman advice to "rough it", often with the almost criminal injunction to "just keep in the open air all the time and eat well, and, for goodness' sake, stay away from those doctors." In many of such instances, these pitiable patients had just about enough money to take them to the place, wherever that might be, and to keep them going for a month or two, after which they would drift and inevitably become charges of public charity, ultimately having to be sent back home, very often, to die upon arrival.

In a recent communication sent out by the Chicago Tuberculosis Institute, the viciousness of such a procedure is clearly laid bare, and corroborative evidence from well-known tuberculosis-physicians in New Mexico, in California, in Colorado, and in various other localities is adduced. It hardly is necessary to quote the remarks cited in the letters referred to. Discussions on the value of climatic treatment of tuberculosis can be found in almost any textbook on the subject and in numerous special articles that have appeared in periodical literature.

But, the point can not be stressed with too much emphasis, that it is criminal to permit a tuberculous patient to leave his home for no matter what climatic surroundings, unless he can be assured of a comfortable living wherever he may go, and unless he can command sufficient means to keep him comfortably for not less than a whole year.

There is another factor that might be mentioned, incidentally, for observance under such conditions where everything else would be favorable for "chasing the cure" away from home. That is, the probability of nostalgia (homesickness) being superadded to the tuberculous disease. To make satisfactory financial arrangements for the patients to go forth in search of health is not enough when the ever-greatest and most-formidable enemy is homesickness. This must be guarded against just as carefully as want and lack of medical treatment.

Our boys went across the water. Never let us hesitate to speak their glorious names in pride—our boys went across the water, because they were filled with the spirit that has made America; a spirit that meets challenge; a spirit that wants to help. Combine these two qualities and you have the essence of Americanism—a spirit symbolized by the Washington monument; that clean, straight arm lifted to heaven in eternal pledge that our land shall always be independent and free.—Franklin K. Lane.

VENEREAL DISEASE IS QUARANTINABLE

The following information is taken from an article appearing in *Public Health Reports* for July 18, and deals with the antivenereal and sex-hygiene program for the colored population. As long as venereal diseases are not included in those communicable diseases that must be reported to the local health-departments and are under the constant control of that department, the possibility of the unrestricted transmission by infected persons is constantly present. It is well that the laity are acquiring a more correct understanding and appreciation of the importance of the socalled social diseases. The more the

laity will learn about this problem, the sooner the demand will be insistent that they be controlled absolutely, in order to diminish the likelihood of their being spread as recklessly as has been the case.

As for the right of local health authorities to quarantine a person infected with a venereal disease, *Public Health Reports* for July 25, on page 1623, cites the following case heard by the Supreme Court of Nebraska:

"A woman was arrested and was found to be infected with a venereal disease. The health-commissioner of Omaha ordered her to be detained in the detention-home of the city, for treatment, until there was no further danger of her communicating the disease. In a habeas-corpus proceeding for securing her release from quarantine, the court upheld the action of the health-commissioner and denied the writ."

We have nothing precious that does not represent struggle. We have nothing of lasting value that does not represent determination. We have nothing admirable which does not represent self-sacrifice. We have no philosophy except the philosophy of confidence, of optimism and faith in the righteousness of the contest we make against nature.
—Franklin K. Lane, Secretary of the Interior.

ALL ABOUT THE BABY

The July issue of *Illinois Health News* is devoted to information on the care of the baby.

While the first public efforts for the welfare of infants dealt almost entirely with the sick baby and with the problems of summer, which is the season of greatest peril, it is now realized that infant mortality is best kept at a low level by dealing with the well baby, by keeping infants in the best health, and that this is a matter of all-the-year-around activity, not of any particular season.

In the matter of the care of the baby, it is always the little things that count. It is the everlasting, untiring, unforgetting attention to the small things that make for the comfort of the little ones and keep them well, enabling the babies to grow into healthy children and adults.

The babies' number of the *Illinois Health News* offers a vast amount of sensible information, such as physicians should present to their clients, especially the mothers of their little patients. It is headed by a very clever cartoon entitled "A Strike in Babyland," where the demands of the babies are recorded on placards.

We are under the impression that copies of this Babies' Number can be secured by writing to Dr. Henry B. Hemenway, chief of the Public Health Instruction, Department of Public Health, Springfield, Ill.

THE OLD GUARD IS DYING OUT

As we are going to press, we receive word of the death of Dr. Truman M. Stewart, of Rockford, Illinois. Doctor Stewart was an old resident of Dakota, having practiced there for thirty-seven years. At the time of his death, he was seventy-five years, one month and nine days old. He was a life long subscriber of Clinical Medicine. We extend to his widow the expression of our deep sympathy.

UNIVERSAL MILITARY TRAINING

We have received, from the president of the Universal Military Training League, 1322 First National Bank Bldg., Chicago, a letter calling our attention to the campaign for federal legislation to establish universal obligatory military and vocational training. Among other things, the writer of this letter makes the following remarks:

"Discipline is negligible in the American home; every boy, or girl, for that matter, needs it. We need a practical and ever-present melting pot to Americanize our citizenship. The people have been drifting apart, thinking in groups; misunderstandings, jealousies, distrust, unrest and turmoil are everywhere in evidence.

"A few months before he died, Mr. James J. Hill, the 'Empire builder of the Northwest,' told me that in his opinion we were approaching a crisis that would shake the very foundation-stones and might overturn the government. Asked for the best means to meet the situation he replied: 'Universal Obligatory Military Training.' This will bring the people together and it will keep them together; it will prove the melting pot that melts. It will stabilize civilization and will put lubrication instead of sand in the gear box of our industries.

"Our campaign is now before Congress for consideration and we want all the help we can get, not only editorial, but the writing of letters to the Congress-

men you may chance to know, and the publication of short, terse articles showing the peace value of training. Let us have the cooperation of the drillmaster and the schoolmaster to develop a sturdier, saner and united citizenship."

We have repeatedly gone on record editorially as favoring the principle of universal military training. From personal experience, in Switzerland, the present editorial writer is firmly convinced of the many advantages accruing to the young man as a result of such training. If anything, this is needed more in our country than it is in the little Swiss confederation. The population of the United States is composed of such heterogeneous elements with such different customs and habits and modes of up-bringing that some centralized agency is imperatively required to bring about the training of young men in such a manner as to imbue them thoroughly and truly with the ideals and ideas that are embodied in our constitution and the possession and manifestation of which in actual life are necessary factors for the maintenance of the American nation in its best possible development.

The Americanization of young people will, we are convinced, proceed far more easily and truly and logically if they are compelled by a beneficent government to devote a certain period of their youth to such definitely regulated duties that will teach them, first of all, obedience, which is a primary condition for the development of the ability to command; also, discipline, orderliness, and a sense of "belonging" that fills the young man with enthusiasm for the great nation of which he is a citizen.

Furthermore, recent events have shown, in defiance of convictions held hitherto, that the United States as a nation is not immune from attack by outside enemies. It, therefore, is incumbent upon us as citizens to be ready to come to the defense of our country and this can be done suitably and successfully only if we are trained appropriately and if the mechanism of such defense is established on a firm foundation.

We wish to encourage our readers to support and promote this meritorious campaign in every possible manner, especially by writing to their representatives in Congress. In order to clear up possible misunderstandings and misapprehensions as to the propriety of universal military and vocational training, for instance, the silly, cheap bogey of "militarism," let us have some discussion, both *pro* and *con*.

There is a sentimentality which would make it appear that in some millenial day man will not work. If some such calamity ever blights us, then man will fail and fall back. God is wise. His first and His greatest gift to man was the obligation cast upon him to labor. When he was driven out of the Garden of Eden, it was the finest, the most helpful thing that could have happened to the race. —Franklin K. Lane, Secretary of the Interior.

"WE REGRET TO ADVISE"

Every day or so the postman hands us a letter that starts off something like this: "We regret to advise you that the price of paper for your journal will be advanced, on September first, from 6 to 8½ cents per pound." And, then, from the printer, who claims that, on account of a recent strike adjustment, he must pay his pressmen so much more an hour, which will call for a new schedule of prices for printing CLINICAL MEDICINE. And so it goes with the electrotyper, the engraver and even our own CLINICAL MEDICINE help, whose salaries have been advanced voluntarily to assist them in meeting the, now, familiar H. C. L.

CLINICAL MEDICINE always has been an expensive journal to produce. Nothing has been spared in the editorial supervision or the mechanical make-up of the journal. For the past five years, ever since that memorable August of 1914, our production costs have been advancing at an alarming rate.

There have been increases all along the line, including even the second-class postage rates. The Zone System now in effect provides for an increase every six months for the next three years. This burden is becoming unbearable, particularly in view of the fact that neither the subscription nor the advertising rates of CLINICAL MEDICINE have been advanced a penny for the last eight or ten years.

The time has arrived, however, when our own rates must be adjusted to meet our increased and still increasing expenses.

Therefore, this announcement that, on January 1, 1920, the annual subscription rate for THE AMERICAN JOURNAL OF CLINICAL MEDICINE will be advanced to $3.00. Renewals for one, two and three years (three years for $5.00) will, however, be

accepted at the present rate until next January.

It, therefore, behooves you, Doctor, to get in your renewal promptly and to pay in advance for two or three years, so as to protect yourself against further increases. We are making this concession out of consideration to those who have been and are now on our subscription records. The United States Post Office has ruled definitely on renewals and it will be impossible to carry our subscribers without prompt remittances.

CLINICAL MEDICINE fills a niche in medical journalism occupied by no other journal. The journal is unique in that it has always been edited from the human-interest standpoint. Every article is scanned closely before being accepted with this idea in mind: "How would this appeal to me if I were in general practice? Does this article contain practical ideas that I could use in my daily work?"

Doctor, that is what counts, practice-building ideas for everyday use. You are busy and your time for reading is limited; you must make the most of it and there is no other medical journal which will give you as much for your money as does CLINICAL MEDICINE.

Make the most of your opportunity, now, before it is too late.

We want to interpret America in terms of fair play; in terms of the square deal. We want, in the end, to interpret America in healthier babies that have enough milk to drink. We want to interpret America in boys and girls and men and women that can read and write. We want to interpret America in better housing conditions and decent wages, in hours that will allow a father to know his own family. That is Americanization in the concrete—reduced to practical terms. This is the soirit of the Declaration of Independence put into terms that are social and economic, and I ask you to help us.

—Franklin K. Lane, Secretary of the Interior.

ORDER AMERICAN-MADE DRUGS

During the first year or two of the war, a great deal of industrial disturbance was caused by the fact that many, indeed, very many things for which we had depended upon importations from Germany no longer could be had. It was especially in the production of chemicals, including numerous remedial agents that German influences had created the idea that we were absolutely dependent upon Germany for these chemicals and that, without German aid, we simply had to do without them.

Then it occurred to some people that, after all, American chemists had succeeded in learning one thing and another and had, indeed, a number of rather pretty accomplishments to their credit. The idea dawned upon us that, possibly, it might be quite feasible to manufacture certain articles ourselves but, for which we hitherto had depended upon German chemists, incidentally paying three or four times more than necessary.

In short, certain chemicals, the production of which was absolutely necessary, but, which thus far had been in the hands of German chemists, were being produced by American manufacturing chemists, partly through their own initiative and partly under the control of the Federal Alien Property Custodian. The important thing is that, now, there is not a single drug or remedy for which we have to depend upon German importation. In fact, every single remedy that any physician may wish to prescribe can be and actually is produced in our own country by our own chemists.

The moral is obvious. Let us support our own industries; let us prescribe drugs and remedies made by American firms that have never been suspected of foreign propaganda and that have loyally supported our own country through thick and thin, and expended vast sums of money in getting ready to undertake the manufacture of new products. It is distinctly up to the American physician to patronize American manufacturing chemists, if only as a matter of pride in the homeland and because of the conviction that his own country can, and does, produce everything that he needs.

Leading Articles

The Secondary Surgical Treatment of Chest-Wounds

By PROFESSOR TUFFIER, M. D., Paris, France
Inspector General of the Service of Sanitation of the Army.—Surgeon to the Paris Hospitals. Member of the Academy of Medicine.

EDITORIAL COMMENT.—We congratulate ourselves and the readers of CLINICAL MEDICINE *upon being able to publish this original communication by Professor Tuffier who is one of the most brilliant operators among the many notable French surgeons. We had the pleasure of meeting Professor Tuffier a few years ago on the occasion of his visit to the United States. We are informed that he intends to cross the Atlantic again in the near future.*

THE surgical operations necessitated by the complications that follow wounds of the chest are relatively few. I will divide them into the two following classes:

1. *Aseptic* complications, which include presence of foreign bodies, hemothorax, pulmonary sclerosis, and, ultimately, pulmonary tuberculosis;

2. *Infectious* complications, these comprising purulent pleurisy and abscess and gangrene of the lungs.

Aseptic Complications

Foreign bodies should be extracted only after their situation has been determined and if they give rise to functional troubles that can be definitely traced to their presence.

When the foreign body is aseptic, my experience has led me to believe that many of the phenomena attributed to it really result from *pulmonary sclerosis;* so much so that, after the removal of this foreign body I have, in a great many instances, seen the functional troubles, the pain, dyspnea, and difficulty of respiration persist in exactly the same degree.

The *pulmonary scleroses* belong to the domain of the physician; they are characterized by bronchial ectasia, pain, and respiratory difficulty. Up to the present, I have not tried surgical intervention.

In every instance of a wound of the lung, in which even but a slight pleural effusion has resulted, it is curious to find that the *corresponding costodiaphragmatic sinus* always is obliterated. Even after only a very slight effusion, the periphery of the diaphragm is much less mobile than its center. The obliteration of the sinus persists, and we have seen this costodiaphragmatic symphysis last for months.

Chronic hemothorax may present either of two forms: an extensive effusion, or a limited interlobar effusion.

As regards *extensive hemothorax,* the diagnosis is made by means of physical examination and the x-ray; successive punctures yield a reddish fluid, the distinctive characteristics of which I have defined elsewhere; they consist in its incoagulability and indefinite reproduction after the puncture. I have seen it last for twelve or fifteen months in spite of 27 punctures, with phases of slight fever, considerable debility of the patient, and without infection of any sort.

The seriousness of hemothorax arises, not only from its long duration, but, from the fact that the corresponding side of the thorax collapses, retracts, and brings about a definite deviation of the spine, with diminution of the respiratory field—the spirometer demonstrating ready dyspnea and a precarious general condition.

After a very long time, the hemothorax gives way to a probable sclerosis, as shown by the x-ray, by a considerable thickening

of the pleura; while physical examination shows a diminution of the vesicular murmur. It is generally situated posteriorly, at the base of the pleura.

I have been able to do much to render the prognosis of this condition more favorable. At present, I am treating all cases quite early, that is to say, after from seven weeks to two months, by pleurotomy—evacuation of the fluid—and wide separation of the ribs by means of my "separator," so that I can see into the cavity. If the chest-wall is immobile during respiration and very resistant to the touch, I decorticate it. If, on the contrary, the lung remains flexible, I merely open the wound, thoroughly remove all the false membranes and close the incision; whereupon the pneumothorax thus created heals definitely.

Limited Interlobar Hemothorax

I have encountered only one case of this. My colleague Doctor Sergent has seen three. These patients suffer but little or not at all, but, they experience a certain amount of discomfort in the chest. The diagnosis can be made only by means of radioscopy and radiography. In all the cases that we have met, the radiographs have shown the signs of a hydatic cyst of the lung; that is, a regular spheroid tumor about the size of a large tangerine orange, absolutely delimited, with sharply defined edges, no sclerosis, no induration of the pulmonary parenchyma and no apparent lesion of its periphery.

The clearcut appearance and the regularity of this tumor led me to believe, in the case of one man, that a hydatic cyst were present, but further tests failed to verify this idea. I punctured the tumor and obtained blood that was incoagulable and having all the characteristics of old blood, both macroscopically and microscopically. I do not know how long these effusions may persist, but, certainly, longer than six months. After puncturing, the cavity collapsed to a great extent. I do not believe that the condition returned. At all events, ten days later, there had been found no fresh effusion.

It would seem that, in these cases, the effused fluid really becomes encysted and that merely its resorption is necessary to allow the lung to fill out the space occupied by the sanguinous effusion.

As to *pulmonary tuberculosis*, I have examined a limited number of cases. My colleague Sergent, though, has seen many, and his opinion coincides with mine; namely: that this complication is of particularly rare occurrance after wounds of the lung. It is rather the consequence of suppuration, of the stay in the hospital, of war-strain, or even of an undoubted individual predisposition.

The best proof that traumatism is not enough, in itself, to form the pathogenic factor is, that the tuberculosis often develops in the lung on the side opposite to the lesion.

I have operated in only one case, when I resected the apex of the lung; the result being completely successful, and a year having elapsed since. I followed the classical technic and had no postoperative complications.

Complications From Infection in Purulent Effusions of the Pleura

In a previous paper, my colleague Depage and I have described a method of treating cases of open purulent pleurisy, which was based upon the chemical disinfection of the wound, followed by closure of the incision. Since that time, many factors have gone to prove the efficiency of this method of treatment in medical purulent pleurisy and in posttraumatic surgical suppurations. Hence, it seems to us that the time now is ripe for making our work public, with a description of our operative technic and a statement of results, which now cover 47 cases.

A. Treatment of Pleural Suppuration in Unopened Cavity (7 Cases)

This comprises three steps; namely: pleurotomy, chemical disinfection, closure.

1st Step: Pleurotomy.—Two kinds of cases are to be considered, according as to whether a pneumococcal purulent pleurisy or a nonpneumococcal suppurative pleurisy is in question.

In the first, we perform simple pleurotomy in the intercostal space. The incision is made at the point where the slope is greatest in the posterior axillary line. My "separator," placed into the wound, enlarges the orifice and allows a complete evacuation of the fluid and false membranes to be made.

In the second class of cases, a thoracotomy with resection of a single rib is preferable. This permits of the complete evacuation of all pathological exudates, the visual exploration of the whole of the

pleural cavity, and examination of the lung.

The exploration of the pleural cavity is important. Its dimensions vary according to the case. Some cavities, for instance, are flattened, either transversely or anteroposteriorly. In both of these cases, the two pleural folds heal easily and the prognosis is good. Other cavities, on the other hand, show deeper recesses, which are difficult to fill. Here, also, the examination of the lung must be made with care. The following example will show how important this is:

Illuminating the cavity and examining it through the opening of a purulent pleurisy, I find the pleuropulmonary fold much thickened at one point. I incise and decorticate this part of the pleural fold, and then find a pulmonary suppuration completely isolated from the pleural cavity.

The last part of the operation is, the insertion of Carrel tubes. Seven or eight of these tubes are placed into all the recesses, even the furthermost, in every direction and fixed to the skin by means of a strip of adhesive plaster. In certain cases, I even have strengthened them with a silver wire, to ensure rigidity and prevent any displacement.

2nd Step: *Chemical Disinfection.*—This is effected directly, by injecting Dakin's fluid into each tube every two hours by means of the rubber bulb. The bacteriological examination, which from the first informs us as to the nature and number of the infective agents, is made by taking a swab once a day from the discharge at three points: the surface, the tract, and the deep recesses.

After a period of from nine to thirty days at the most, the pleural cavity becomes sterile and the wound is closed definitely.

3rd Step: *Closure.*—As soon as sterilization has been effected, the incision is closed by the method to be described later.

B. Treatment of Fistular Purulent Pleurisy (6 Medical Cases)

The purulent pleurisy has been opened, a fistula remains, and there is persistent suppuration. These cases, which should no longer occur, still are quite numerous. I, myself, have operated in 38 cases, and one of my pupils, Doctor Loubet, has collected more than 40 in his service at Nice.

When the patient arrives, the suppuration usually dates back from about six weeks to five months; the drainage-orifice is small, the surgical wound is partly cicatrized and the general condition remains more or less precarious.

I first of all make a bacteriological examination of the discharge from swabs taken from three points: (1) the deep part of the cavity, (2) the edges of the fistula, (3) the skin near the wound.

The nature of the discharge being thus established, the treatment is instituted. It comprises three steps, as in the procedure previously described:

(1) Débridement[1] and incision of the pleural adhesions.

(2) Chemical disinfection;

(3) Closure, which here is quite different from the operative method.

1st Step: *Débridement and loosening of the pleural adhesions.*—After débridement of the wound and placing of the "separator," the pleural cavity is explored. The presence of false membranes on the surface of the lung, which is mobile, is then disclosed; they may be removed by simple rubbing. The location, number, and size of the false membranes are then seen, and, if the cavity is infected, it is only necessary to put in a series of Carrel tubes, for the purpose of disinfection.

2nd Step: *Chemical Disinfection.*—This must be carried out with extreme care. It is, unfortunately, badly borne in the case of bronchial fistulas, and the Dakin injections frequently give access to everything that should be avoided. Throughout this course of disinfection, the pulmonary inspection is kept up daily and methodically. The pleural cavity is measured by the quantity of liquid that can be injected into it, and the rise and fall of the lung is calculated very easily by the difference in the volume of the liquid that can be injected during inspiration and expiration.

As soon as the daily bacteriological examination of the secretions shows that sterilization has been effected (1 microbe or less in four different fields), I close the thoracic orifice. A little before the absolutely certain sterility of the wound, however, it is prudent to suspend the antiseptic treatment and make cultures. For this purpose, after removal of the tubes, a dry dressing is applied to the wound and maintained in position for twenty-four hours. Three successive swabs are then taken

[1]Débridement means, the division of constricting bands by means of the incision of tissue.

from the depths of the wound—from the edges and from the neighboring skin. If all three remain negative the wound is sutured.

3rd Step: *Partial or total decortication.*—Having dilated the incision in the chest-wall by means of my "separator," the false membrane is disclosed and attacked at its periphery, that is to say, at the point of union of the lung and the thoracic wall. This part of the operation is difficult to perform, and the opening of the chest-wall must be large enough to make it possible. As soon as this separation (for which I use a bistouri) is effected I take a special long spatula that I have had made for the purpose and lightly loosen the false membrane. The lung is then seen to free itself throughout the pleurocostal groove.

The pulmonary decortication is then performed, beginning at the periphery and proceeding toward the interior, either by median, transversal or longitudinal section, thus forming two divisions.

In certain cases, this dissection can be made through the length of the surface, and the lung is seen to expand out of its confinement and fill the thoracic cavity.

The decortication may be complete, the surface of the lung remaining intact—in which case, it is a matter, not of pleurectomy, but, solely of *decortication*. A slight bloody discharge and the appearance of a few bubbles of air, in certain cases, demonstrate erosion of the parenchyma.

When this decortication is not possible, the false pulmonary membrane must be removed in one piece, so far as it can be separated from the lung without too much tearing, while at other points, where it is too adherent it must be thinned down.

If *absolutely firm adhesions* are present, such as one sees in a traumatic or medical pulmonary lesion, it generally is necessary to let them alone, as interpulmonary dissection is too dangerous. In other cases, they are found in places where nothing can explain the location.

Lastly, if a bronchial fistula is discovered this should be closed by Lambert's method.

If the pseudo-membrane of the *pleuro-parietal* fold is easily separable, it can be removed; otherwise, it may be left without causing inconvenience.

4th Step.—On termination of the operation, the whole of the decorticated surface, after simple compression, remains dry. The fistulous tract is resected, the fragments are made mobile, and the whole wound is closed, either by two rows of stitches, the deeper of catgut and the superficial one of silkworm, or by a single row through the skin and muscle.

If there is profuse sanguinous oozing, my suture is not complete. I then place on the surface of the lung a light gauze dressing, which absorbs and removes the blood, and I partly close the wound. The next day, I remove the dressing and tighten the temporary stitches (previously made through the pleuroparietal opening, so as to allow of discharge), and the suture is then complete.

This decortication is, as a matter of fact, De'orme's operation. The reason why it formerly succeeded so seldom was, that it was performed in a septic field, which left a fresh purulent pleurisy and a fresh false membrane. Under present conditions, the hemothorax that remains is absorbed and the lung resumes its place.

Thus, then, surgical tendencies are now exactly opposite to those that formerly prevailed; the thoracic cage no longer is placed before the lung in importance, the lung always being considered before the chest-wall. The advantages of this are considerable for the functional future of the patient; the lung resumes its normal activity, whereas, in the former method of treatment, everything tended to destroy it.

In many cases, the sterilization of the wound was not sufficient when I operated. Another abscess formed on the wound—opened it and healing was successful afterward. The final results are very interesting. When cicatrization is complete, one can examine the respiration by measuring each half of the thorax and by auscultating. In acute cases, the final results give a normal respiration, except at the base of the lung. The diaphragmatic costal sinus disappears. In chronic cases, the deformity of the thorax remains stationary after the treatment of the patient has begun. The respiratory capacity increases after cicatrization. The thorax on the side affected enlarges.

Some Fundamentals in Public-Health Work

By E R. PRITCHARD, Chicago, Illinois
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LET'S get at it this way:

Fundamentals are of prime importance in any branch of science. The lawyer grounded in the fundamentals of law, the musician in the fundamentals of music, the physician in those of medicine, the artist in those of art or the architect in the fundamentals of his calling all are equipped for advancement, so far as their own skill and industry can take them.

So, public-health work, comparatively a new calling, has its now recognized fundamentals on which, basically, must rest efficient community-service along public-health lines. Benjamin Franklin, one of America's first philosophers, a long time ago, said that, "an ounce of prevention is worth a pound of cure." But, it was more than one hundred years before this plain, simple, basic principle was put into practice in carrying out measures for promoting and insuring community-comforts and safety.

The epigrammatic statement that the number of typhoid-deaths in a community is an index of the intelligence of that community in sanitary matters, is little more than twenty years old. But, it is now accepted as a basic truth and, in itself, formulates a new postulate for the discussion of this, the most dangerous of all the filth-diseases. It formerly was considered fitting to charge all typhoid deaths to the inscrutable will and wisdom of a Divine Providence, rather than, as is now being done, to the ignorance and cussedness of man. As a matter of fact, it was only a few years ago, comparatively speaking, when health-officers looked upon typhoid fever as a scourge beyond their means either to prevent or control. That day, happily, has passed, never to return. Towns and cities all over this broad land are abandoning the criminal idiocy that formerly prevailed when they poured their sewage-filth into the same sources from which they obtained their water-supply.

The Five Fundamentals of Public Sanitation

And, now, taking typhoid fever only as an example of the progress made in public-health work, I assume that it may safely be premised that, in this as well as in all other public-health activities, which have been broadened both in scope and character and increased in efficiency of administration and, therefore, in value to the people thus served, the following fundamentals have been employed. These are:

1. Information.
2. Education.
3. Publicity.
4. Cooperation.
5. Laws.

These five fundamentals are inseparable and interdependent. For example, concealed information is worthless; publicity makes it valuable. Information is also educational and upon the wise use of these agencies, will depend that cooperation by the people that renders public-health measures effective.

It is difficult to get people to conform to certain requirements in the interests of public health and comfort when they do not fully understand. Both interest and cooperation are stimulated by the knowledge of why certain things are a menace to public safety.

When a citizen understands fully the direct and important connections between a pile of stable-refuse and the swarms of disease-breeding house-flies that torment both him and his family, he is only the more willing to comply with a notice served admonishing him to remove the cause of his trouble. But, when he has also learned that the fly carries the germs of many dangerous diseases and in this way causes sickness and death, he can easily be enlisted to give his time and

money to rid his neighborhood of flies and thus protect the health of his own and his neighbors' families.

Gaining Support of the Public

In order, then, for the public-health official to gain the intelligent cooperation of the citizen, he must show him why cooperation is necessary. In other words, the health-officer must inform and educate those people who, conceding that they need his services, have no clearly defined conception of his duties and responsibilities and still less as to their own. If you met a man on the street and handed him a pedometer, assuming that he had never seen an instrument of this kind, he would most likely turn it over in his hand and in a mildly interested way say, "I don't want it, what's it for?" but after you have explained that, properly adjusted to his stride, the pedometer will tell him how many miles he walks every day, you have educated him as to the use and value of the mechanism, and then he will accept it gladly and thank you for having told him about it. But, suppose you had only shown him the instrument and left him in the dark as to its use, he would be no wiser and you would only have wasted your time. So, I am again moved to say that concealed information is not worth a continental to anybody.

The late Dr. Frank W. Reilly, for many years Assisant Commissioner of Health of Chicago, and who sometimes was rightly called "Chicago's most useful citizen," may be said to be the father of publicity and education as important factors in public-health work. Doctor Reilly had been for several years the managing editor of one of Chicago's leading dailies. It was in that capacity that he discovered the value of a "health-story" from a purely news-standpoint. He found out that health-information has a distinctive news-value; that the people, or at least a large percentage of them, wanted to know about the things that cause needless and, therefore, preventable sickness and death among them. It was along these lines that, more than twenty years ago, he wrote, published, and had widely circulated for the Chicago Department of Health the pamphlet "Summer Care of Babies". This valuable little publication was among the first, if not the first, publication of its kind ever issued by a department of health in this country.

Here was the trained newspaper-man, who was also a skilled physician and sanitarian, instinctively recognizing publicity and education as fundamental aids to the successful prosecution of public-health work. Doctor Reilly recognized the importance of letting the mothers of Chicago know why their babies sickened and died and the things that could be done to save them. And, so, this wise advocate of public sanitation created the "health-story" and made it news. And, in doing this, he set in motion the agencies that have saved the lives of thousands of babies in Chicago and stimulated the health-officials of other cities to follow his lead.

I have not deemed it necessary to discuss, in this article, the achievements in medical science that have made it possible for the public-health officials to do real effective work in protecting community-health. These discoveries and achievements range all the way from Jenner's discovery of vaccination for smallpox down to the discovery and use of toxin-antitoxin as a prophylactic against diphtheria, not forgetting the work done by Read in indicting and capturing the stegomyia mosquito as the agency by which yellow-fever was transmitted and spread throughout the south. But, it must not be forgotten that, in all these wonderful aids in public-health work, publicity and education have been the means through which they have been made valuable in saving human lives.

Medical Science Made Possible the Panama Canal

The Panama Canal, a triumph of modern engineering-skill, is not so much a tribute to the noble profession of engineering as it is one of the crowning achievements of medical science. For, without it, the Panama Canal would not be in existence today. France tried to build a water way across the Isthmus, but, despite engineering skill and abundant financial means, the mosquito (the anopheles and the stegomyia) turned all attempts into complete and bitter defeat. But, with the full and general promulgation—the general exploitation, if you please—of the information concerning the deadly character of the mosquito, Uncle

Sam accomplished the task; and, while he was at it, the death rate in the Canal Zone was as low as, if not lower than, it was in the City of Chicago. So, once more let me emphasize the worthlessness of pentup and carefully concealed information.

Winning Over the Dairy-Farmers

Now as to cooperation. Twenty years of service, over half of which has been spent in the publicity and educational side of public-health work, have convinced me that cooperation on the part of the public must depend almost entirely upon the full and complete understanding which the public has of what its health-officials are trying to accomplish. Let me illustrate this point.

Some fifteen years or more ago, when the Department of Health first sent its dairy inspectors into the dairy-regions from which Chicago gets the 300,000 gallons or more of milk which its people consume every day in the year, the dairy-farmers, naturally, resented this inspection as an unwarranted invasion of territory over which the City of Chicago had no legal jurisdiction whatever. But, when these same farmers were enlightened on the fact that it was up to themselves to produce milk as good as the money they received for it; that Chicago controlled its own market; when finally they were educated up to the point where they could see that the milk-standard as to purity and excellence should compare favorably with the money-standard; and, finally, when they realized that the dairy-inspectors were there to help them to produce a clean, safe milk, in exchange for clean, safe money, it became easier sledding for the dairy-inspector and more profitable for the farmer, who was willing to be enlightened and to fall in with the new and better methods of handling the products of his farm. Here was another instance where the exploitation of the right kind of information brought good results, and which had a direct and important bearing upon the health and lives of thousands of Chicago's babies.

And also another instance wherein the same information or knowledge, had it been kept under cover, would have amounted to nothing. Hostility changed to friendliness; opposition, stubborn and unreasonable, changed to cooperation, splendid and even aggressive in character; and all this brought about by the right application of a few simple fundamentals.

Lastly, because least in importance, laws. I say least, for the reason that the longer I have been in public-health work, the less faith I have in penal health-statutes. Not, that I advocate their abolishment, for, there always are the few cases in which nothing else seems to produce the desired results. But, even health-ordinances should be enforced along the lines of common sense and common justice. Publicity and education have done a thousandfold more in suppressing indiscriminate spitting in public places than have all the antispitting ordinances put together. True, the ordinance is a small help in enforcement, but, it does not compare with an enlightened public sentiment based upon, and created by, actual knowledge as to the real and distinct menace to public health because of this disgusting and dangerous habit.

Still, there is the need for sane legislation on health-matters; but, that, after all, only is intended for emergency-use when other and more reasonable methods have failed. The *Bulletin* of the Chicago Department of Health has, for many years, carried as its motto this sentence from the Earl of Derby, "Sanitary instruction is even more important than sanitary legislation". And it is upon this fundamental fact, as well as upon my years of experience and observation, that I do not and can not accord more than a secondary importance to health-laws as compared with the other fundamental aids to efficient public-health work that have been mentioned.

The successful health official will seek to make use of every available means for informing and educating on health-matters the people he serves. To do this, he should not be averse to the daily interview with the newspapers of his town on health-topics. He should be able to dish up "health-news", and, in a form that the newspapers will print and the public will read and profit thereby.

The present Commissioner of Health has sometimes been accused of seeking notoriety through the columns of the daily press. In my judgment, the charge is not well founded. But, were he to be accused of using the newspapers to the limit for

spreading information on any and all matters having a bearing upon public health, comfort, and safety, I, for one, sitting as a juror should find him guilty without leaving the jury-room.

Next to the newspapers as aids in publicity and educational work, should be classed the schoolteachers, their pupils and the clergy; then add to these the social, religious, and civic organizations, and you will have a pretty-well-organized force to be used in formulating the right sort of opinions about health-matters and for carrying out in a prompt and effective way such measures as may be devised for proper health-protection; and, in fact, covering most, if not all, of the activities that make for community comfort and safety.

Digest of Lectures on Feet*

Delivered in the School of Orthopedic Surgery, Camp Greenleaf, Georgia

By Sergt. First Class, P. COSMAN, Med. Dept., U. S. A.
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AMONG the most instructive clinics at Camp Greenleaf, Georgia, were those held under Maj. Edwin W. Ryerson, M. C., (Chief of the School of Orthopedic Surgery), Capt. W. J. Merrill, M. C., Capt. J. Kutz, M. C., not to mention others.

In this survey, I wish to give a digest of the most salient points discussed; not as given in individual clinics, but, picked at random. Credit belongs to all those officers, so, I will combine their lectures and record that which seemed most important.

In civil life, many foot-ailments are looked upon as trivial, but, their importance in the army is such that, if not corrected, serious trouble will follow. If a soldier is suffering pain from a corn, fissure, blister and such, he will limp and pick his way the best he can. He will disturb the cadence of the marching column and the rhythm of his marching unit. He is using up his energies by extra strain, and becomes a disquieting factor; his morale is altered, and finally he falls out of line.

It is a well-known fact that the functions of the organs are very much influenced by the reactions produced by mental agony because of painful feet; also, that many other conditions found in the feet are the direct results of infections far away from the point of manifestation. In those cases, the dentist and the laryngologist will find a reason why men complain about rheumatism in the feet or why there are motor disturbances in the limbs of an apparently healthy subject.

Anatomical Considerations

The normal foot is a complex structure, capable of a great variety of movements. When the two feet are brought together in a parallel position, they form a dome, with the two scaphoid bones as the highest point.

A line drawn from the middle of the heel through the middle of the big toe (Meyer's line) runs under the longitudinal arch and passes through the massive parts of the foot that are intended for propulsion. (Fig. I). The heavy first metatarsal bone and the phalanges of the first toe point to this, in contrast with the smaller metatarsals and phalanges of the other toes, which are rather for weight-bearing.

All segments of the foot are interdependent with each other and, if one of them is out of order, its complementing segment will likewise be affected. This is the reason why minor ailments, such as corns, abrasions, blisters, ingrown nails, may completely overthrow the physical and physiological balance of the foot-structures and so incapacitate and completely alter the disposition of the person.

Anatomically, functionally, and mechanically, the longitudinal arch is composed of the os calcis, astragalus, scaphoid, cuneiform bones, their metatarsal bones and corresponding phalanges. The forefoot (the structure anterior to the mediotarsal

*Paper read before the Staff of U. S. General Hospital No. 16, New Haven, Conn., on July 19, 1919.

joint) is made up of segments. The inner three segments are each composed of a cuneiform bone, a metatarsal bone and their corresponding phalangeal bones.

Arches must be considered for the case in hand, since the height of the arch is not commensurate with the condition known as flatfoot. The normal longitudinal arch has as its highest point the scaphoid bone. A low arch is of import only when it is associated with dorsal flexion of the toes, contracted toes, hallux valgus, abduction of the forefoot, rigid joints, deformed toes, supination, pronation, tenderness, and pain under the distal ends of the metatarsal bones, downward

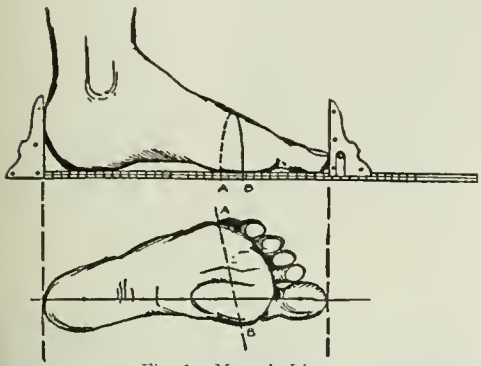

Fig. 1. Meyer's Line.

and inward position of the scaphoid, arthritis, edema, and practically all other changes in the foot-structures, particularly so when present in connection with outward rotation of the limbs.

To properly inspect a foot, we should first notice its relationship to the leg; secondly, how the foot acts under stress (weight-bearing). Next the condition of the skin is of importance; its color if white, red, cyanotic, blanched, tense or flaccid; whether it is moist, dry, cold, hot, atrophied, or edematous; the conditions of the joints, if stiff, loose swollen; if they contain fluid, or if crepitus is present; whether deposits, exostoses, tenderness or pain under pressure or if there is evidence of previous traumas. Furthermore, corns, calluses, ingrown or hypertrophied nails, particularly in possible relationship to Raynaud's disease, tenosynovitis, tuberculous or otherwise, old sprains, or possible Köhler's disease of the scaphoid.

Posture

The strain upon the foot-structures is decidedly less under conditions of good posture of the body as well as of the feet. The increase of the strain caused by abnormal posture varies directly with the angle of deviation. Malposture of the trunk or head, which imparts abnormal stress upon the lower extremities, transmits strain to the weight-bearing support of the feet. Forward position of the head, with chin forward, favors increase of the thoracic curve and forward position of the shoulder-girdle; these positions favoring flattening of the lumbar spine and backward rotation of the pelvis; while the latter movement favors outward rotation of the lower extremities, bent knees, and the "toeing" out position of the feet. This posture of the body and feet throws a cross inward strain on the midtarsal, both in standing and walking, but, especially in walking, and tends to produce pronation and flattening. If the head be held erect, chin in, feet parallel, the tendency for the shoulder-girdle is, to move backward, the thoracic and lumbar curves to approach the normal, the pelvis to rotate forward and the lower extremities inward, and the knees to become straight. The rule is, to let the divergence of feet be 45 degrees in standing and parallel in walking, effort being made to bear weight upon the outer border of the feet.

The extrinsic and intrinsic muscles maintain the posture of the foot, chiefly, while the ligaments act as stabilizers of the bones. The toes should be straight, flat, and freely flexible. The axis of the great toe should fall within Meyer's line. This line is drawn from the center of the tuberosity of the os calcis to the center of the ball of the great toe and should be parallel with a straight edge placed on the inner side of the heel and ball of the great toe and coincident with the axis of the great toe.

The plane of weight-bearing for the lower extremity and foot in standing should be: in general, through the head of the femur, center of the knee-joint, center of the ankle-joint, inner third of the os calcis and axis of the great toe. The oscillating motion of walking varies the relationship of the plane of weight-bearing and supporting structures. The spread of the toes is, to give lateral support.

The posture of the feet should be accurately determined, since any slight variation may indicate some existing or potential structural or functional disorder, which

may cripple the man or make him helpless when his feet are subjected to greater or unaccustomed strain.

Examination

Examine the functioning of the feet in the following manner:

The patient should assume a normal posture, feet parallel and head up. (A) Feet on floor, flex toes dorsally. (B) Raise on

Well arched but weak feet.
N. B. Notice length of forefoot.

heels. (C) Raise on toes. (D) Supinate both feet and flex toes. (E) Half-squat, without lifting heels off the floor, to test the tendo achillis. (F) Examine the walk, or the run, if possible. (G) Take heel in hand and gently test all ranges of movement, passively.

It is important to note whether any pain is in the foot itself, or referred to from above, whether it is coincident with use, subsides with rest or persists after rest, especially upon rising. Whether the pain in the tendons and ligaments is associated with pain in the muscles or coincident with constitutional conditions and focal infections. Dorsal flexion less than 90 degrees may be owing to muscular, ligamentous arthritis, neurological conditions, malformations or deformities, improper footwear or to misuse of the feet. Limitation of motion and muscle control may be a consequence of lack of muscle training. Pronation and abduction may result from bad habits in standing or walking.

Very important it is to observe whether there is a relationship between a given foot defect and other conditions. A considerable degree of flat foot and hallus valgus may not be significant or disabling, unless associated with one or more other abnormalities contributing to the disability. This applies also to pronation abduction, and so on.

Most pedal affections may be classified as follows:

1. Weak feet.
2. Flaccid flat feet.

1. Musclebound feet.
2. Contracted feet.
3. Rigid feet.
4. Spastic feet
5. Clawfeet
   (First degree).
   (Second degree).
   (Third degree).

Weak Feet: Symptoms: pain, tenderness, fatigue after little use. Marked inability to perform the functions, pronation and slight flattening, outward rotation of one or both legs, also bilateral swelling about the ankles, due to overweight but is only found in heavy people having weak feet. Strapping of the arch, massage and arch supports may relieve; sometimes excision of the swollen tissues is resorted to.

Flaccid Flat Feet: Symptoms: Very low and flat forefoot, much abduction of forefoot, inclusive of toes, scaphoid prom-

Same foot in flexed position. Notice strain in first metatarsal phalangeal region.

inent, heavy gait, functions respond well. Treatment for above named conditions is practically the same as far as mechanical means go. An extension or Thomas heel is put under the shoe, also an inner wedge from the posterior point of the

heel to the joints of the first, second, third and fourth metatarsals and toes. Care should be taken not to extend this wedge to the fifth toe. As this process is extended to supinate the foot, and the fifth toe is a weight bearing one, this toe must rest down on the ground. Rest, massage, alternative baths (hot and cold) or baking will greatly improve and benefit those conditions.

Some of the exercises to relieve weak

Flaccid flatfeet.

muscles are with or without weightbearing:

I. Half squat; arms at side, body erect, feet parallel and squarely on the ground, knees bent to angle of 45 degrees.

II. Deep knee-bend, body and feet in position of (a) hands on hip, raise sharply on ball of feet, (b) body erect, bend knees until buttocks rest on heels. (c) Still bearing weight on ball of feet, straighten knees. (d) Heels on ground.

III. 1 (a) Feet flat on ground and parallel dorsally. Flex toes. (b) Flex them sharply to the ground.

2. (a) raise on heels. (b) Plantarly flex toes. (c) Dorsally flex toes. (d) Feet to ground.

IV. (a) Supinate feet to outer border, feet parallel. (b) Plantarly flex toes. (c) Dorsally flex toes. (d) Feet flat on ground.

V. Walk on outer border of feet (supination), with toes sharply plantarly flexed.

VI. Body erect, knees straight, feet firmly on ground and parallel. (a) Raise right leg to angle of 45 degrees, plantarly flex foot and toes with inversion of leg and foot (b) Raise on ball of left foot, left leg straight. (c) Ball of right foot to ground, right in front of left foot, bearing weight on balls of both feet. (d) Right heel to ground. Repeat alternately left and right.

Musclebound feet result from muscle weakness, excessive strain, also infectious and toxic myositis, by producing tonic spasms and contracture of the gastrocnemius, soleus, perineus longus and brevis, posterior tibial, the long flexors and extensors of the toes. Proper shoes, rest, massage, manipulations, local applications, and contrast baths are indicated to correct these conditions.

Contracted feet are similar to musclebound ones, but, contraction of the plantar facia may be present. Radical treatment may be necessary and call for tenoplasty, with stretching to the limit of toleration.

Flaccid flatfeet. Plantar aspect.

Rigid feet are result of toxic or infectious arthritis, or osteoarthritis, induced by a strain. Gonorrhoea is mostly the cause. The foot is rigid, flat, and pronated, often swollen around the internal

malleoli, severe pain and limited motions. Palliative treatments, to alleviate pain, are indicated, also careful inspection of teeth and tonsils. If conditions persist, it is better to produce deep anesthesia and then relax the muscles, manipulating till flexible, then put in plaster cast for two weeks or a month.

Spastic feet are owing to contraction of the peroneous longus and brevis. The foot is in pronated position and can not be supinated. This may be because of trauma, inflammation or neurological conditions. Tenoplasty of the peronei should be done; sufficient lengthening being made to permit free supination. After removal of the cast,

Varicose veins and third degree flaccid flatfeet. Notice scaphoid resting on the floor.

palliative measures must be taken, to straighten and increase mobility.

Clawfeet are classified according to three degrees:

First degree, first type: The big toe is contracted, but if the head of the metatarsal is raised, the toe tends to straighten. The forefoot is dropped and there is a slight contracture of the plantar fascia. The smaller toes are not affected.

First degree, second type: The big toe is not affected, but, the second, third, and sometimes fourth and fifth toes are contracted.

First degree, third type: All the toes are contracted. To test: by raising the heads of the metatarsals, the toes straighten; but, a contracture of the midphalangeal joints manifests itself and the slight cavus remains. There is loss of function, muscle pain and tenderness under the ball of the foot, and corns and callosities are present, All contracted tendons stand out and there is much muscle spasm. Palliative treat-

Third degree flatfoot; rigid type. Notice prominent scaphoid (Köhler's disease).

ment may relieve the pain somewhat when the calluses are constantly being removed; however, surgical intervention alone will effect a cure.

Second degree: Symptoms are more severe, and there is equinus and cavus, also varus of the os calcis.

Clawfoot. First degree—second type.

Third degree: Vasomotor trophic changes take place. Toes are blue and marked equinus and cavus are present. Tenoplast-

ics of contracted tendons are necessary and sometimes amputation of the toes has to be resorted to.

Acute footstrain: This is a condition in which the muscles are in a state of hyperirritability after walking or standing for a long time, and persists even when resting. There is marked loss of function, spasmodic pain, dull or heavy ache, some swelling, increased local temperature, and excessive tenderness. Rest in a recumbent position is the first requisite. Strapping of the arches in an exaggerated supinated position will sometimes relieve. Then the ankles are strapped with adhesive plaster strips.

Chronic footstrain is of a somewhat different type. Pain is experienced in the

Hyperidrosis with hyperthrophied skin. Callosities under fifth metatarsal.

muscles of the calfs along the tendons at their attachment, also of the ligaments. There is pain in the knees, hips, and lower spine, resulting from altered posture. The pain is likely to be more severe at the end of the day, and, after a night's rest, the patient complains of stiff legs that limber up again only after a few hours' use, but, also, the pain recurs. Properly fitted arch-supports, to correct the posture, will be of great help, in addition to the treatment given in the acute condition.

Köhler's disease is a condition of which the origin is unknown. It is limited to the scaphoid bone alone. The bone is laterally more or less enlarged and anteroposteriorly shortened. It is largely mistaken for flat foot, but, the customary position of that condition is not always present. A properly fitted arch-support usually will relieve any painful feeling, if present.

Tuberculous Tenosynovitis: When a tendon-sheet is constantly swollen and increases in size, it is suggestive of tuberculous trouble. Excision of the sheet ordinarily will effect a cure.

About Shoes

Now a few words about shoe fitting. When one looks at the inside of a shoe and finds there a profusion of numbers, one is rather bewildered as to what they mean. Shoes are marked according to their width and length. Men's sizes run from No. 5 to 12, or even higher. The widths are A, B, C, D, E and EE, but, most shoe-manufacturers mark the widths also in numbers, A being represented by 1, B by 2, C equalling 3, D equalling 4, E equalling 5, and EE being represented by 55. When a shoe is marked 3754241, it means that the first number (3) stands for C, or, in other words, the width of the shoe. The next number, 75, represents size 7½; also, often, this half-size is marked by a dash (—).

This second number equals the length of the shoe, in this case, 7½. The rest of this long figure is the manufacturer's stock-number. Take, for instance, number 55 5 5555, this would mean EE width, 5½ length, and the four remaining fives, are the stock-number. It is necessary to know this, because a shoe salesman in a store is there to make a sale, and, if he has not your size, he will give you something else; then, if one does not understand those numbers, you simply have to take his word for it. This is one of the reasons why so many people have foot troubles.

Another fallacy in measuring a foot in the shoestore is, to put the foot on a little inclined bench, when the salesman takes the foot measure. One ought to realize that in this position, the foot is relaxed. The proper way to measure is, to set the foot flat upon the floor, with the full weight applied. Then we get the right length and width. The difference between the relaxed and the weighted position often is marked, as much as two sizes difference.

In making shoes, there is no standard to determine the width, in inches, of the first size, or No. 5. Each A width above the 5 A increases by 1/12 of an inch (measurement represented by each letter). Thus, a 5 B is of the same width as a 5½ A.

Shoe lasts are built according to an average of measurements of many feet, and the

width and shape are determined from anatomical and functional considerations. The length of standard size 5 is 10 inches. From this, the length can be determined by a tape measure or rule, and, knowing that each length is 1-3 of an inch, and each width is 1-12 of an inch, an exact size can easily be figured out.

One foot usually is larger and longer than the other, so it is best to measure the larger one. Use only socks worn during the season, because a light or heavy sock will change the width of the foot. Place the foot on a foot-measure, the heel against the posterior upright, bear the full weight down and move the anterior sliding upright to the tip of the longest toe (sometimes the big toe. (See picture). Notice the number and add two numbers to it. This will give the right length.

For instance, the foot measures, on the foot-rule, 8, that means that the proper shoe size is number 10. This gives sufficient room for the toes and avoids rubbing and pressure. To give the right width, a tape measure is placed under the ball of the foot and full pressure is applied. The tape is brought up over the ball at the midpoint of the metatarsal phalangeal joints of the first and fifth toe, and drawn close, not tight. The measure is noted. When, for instance, this measures 9 7-8 inches, and the length is 10 (see size column), then the proper size is, 10 E.

To test the length, press with forefinger (if width of the forefinger is equal to two sizes) crosswise downward in front of the big toe; if one side of the finger is against the toe and the other side flush with the tip of the upper, the length is correct. To test the width, with thumb and forefinger, grasp the upper over the ball of the first and fifth toes, press inwardly and slide the thumb and finger together toward the middle of the upper. If it bulges slightly, and can be felt between the thumb and finger, but can not be grasped, the width is correct. If the upper can be grasped, the shoe is too wide. If the upper is tight and does not bulge, it is too narrow. If size and width, according to measure, are incorrect, try on shoes of the next half-size or width indicated by the error.

If a shoe of correct size is too wide in the heel or too wide above the malleoli, the insertion of a piece of felt in the heel or under the tongue of the shoe will correct this to satisfaction.

FROM CIRCULAR No. 10. QUARTERMASTER GENERAL'S OFFICE, APRIL 6, 1912.

Sizes of Regulation U. S. Army Shoe.

Widths		5	5½	6	6½	7	7½	8	8½	9	9½	10	10½	11	11½	12
A	Ball	7⅝	7¾	7⅞	8	8⅛	8¼	8⅜	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜
	Waist	7⅛	7⅛	8⅛	8⅛	8⅛	8⅞	8⅛	8⅛	8⅛	8⅛	9⅛	9⅛	9⅛	9⅞	9⅛
	Instep	8¼	8⅜	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10
	Length	10	10⅙	10⅓	10½	10⅔	10⅚	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓
B	Ball	7⅞	8	8⅛	8¼	8⅜	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝
	Waist	8⅛	8⅛	8⅛	8⅛	8⅛	8⅛	8⅛	8⅛	9⅛	9⅛	9⅛	9⅞	9⅛	9⅛	9⅛
	Instep	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼
	Length	10	10⅙	10⅓	10½	10⅔	10⅚	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓
C	Ball	8⅛	8¼	8⅜	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞
	Waist	8⅛	8⅞	8⅛	8⅛	8⅛	8⅛	9⅛	9⅛	9⅛	9⅞	9⅛	9⅛	9⅛	9⅛	10⅛
	Instep	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10⅜	10½
	Length	10	10⅙	10⅓	10½	10⅔	10⅚	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓
D	Ball	8¾	8½	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛
	Waist	8⅛	8⅛	8⅛	8⅛	9⅛	9⅜	9⅛	9⅞	9⅛	9⅛	9⅛	9⅛	10⅛	10⅜	10⅛
	Instep	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10⅜	10½	10⅝	10¾
	Length	10	10⅙	10⅓	10½	10⅔	10⅚	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓
E	Ball	8⅝	8¾	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10¾
	Waist	8⅛	8⅛	9⅛	9⅜	9⅛	9⅞	9⅛	9⅛	9⅛	9⅛	10⅛	10⅜	10⅛	10⅞	10⅛
	Instep	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10⅜	10½	10⅝	10¾	10⅞	11
	Length	10	10⅙	10⅓	10½	10⅔	10⅚	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓
EE	Ball	8⅞	9	9⅛	9¼	9⅜	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10⅜	10½	10⅝
	Waist	9⅛	9⅜	9⅛	9⅞	9⅛	9⅛	9⅛	9⅛	10⅛	10⅜	10⅛	10⅞	10⅛	10⅛	10⅛
	Instep	9½	9⅝	9¾	9⅞	10	10⅛	10¼	10⅜	10½	10⅝	10¾	10⅞	11	11⅛	11¼
	Length	10	10⅙	10⅓	10½	10⅔	10⅝	11	11⅙	11⅓	11½	11⅔	11⅝	12	12⅛	12⅓

After Thirty Years—XVII

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

A Little Learning Is a Dangerous Thing

THERE is a form of mental aberration —if we may call it such—in which the person attempting to use a certain word utters, not the word intended, but one that resembles it somewhat. Sometimes the resemblance is so slight or vague that it would be difficult to say just in what it consists. But, it seems that, in the mind of the individual prone to this error of expression there is some kind of unconscious cerebration that either sees a resemblance between the two words, or else, in some way, associates the one with the other. For example, a person intending to say "Toledo" may say "Cleveland," without being aware of the error, either at the time or afterward. Of course, any person will occasionally make such a mistake. Here, however, I am referring only to those persons with whom it is a habit or, may we say? a disease. I have encountered it most frequently in people that are mentally peculiar—it would, perhaps, be unjust to say, unbalanced. I have never seen or heard a name* for this mental failing, and I am not enough of a Greek scholar to devise one.

Ordinarily this error results in nothing worse than a misunderstanding, perhaps followed by a controversy in which the hearers assert that one thing was said, while the speaker is equally positive that is was something different. But, sometimes the consequences are more serious.

Many years ago, such a mistake resulted in a tragedy in which I, myself, was one of the minor actors. Since all the others are dead, I can tell the story without violating any confidence or awakening painful memories. While the names used are all fictitious, the story, in every other respect, is not fiction, but, gives actual facts.

John Carson, then, was a medical student approaching middle life, not brilliant, but, honest and plodding. He was ambitious to make something of himself; but his poverty compelled him to alternate his periods of study with intervals of work, in order to earn a livelihood. His wife was a kindly, faithful creature, completely wrapped up in her husband. Her whole life, her every thought seemed to be concentrated upon his career, and she sacrificed herself in every possible way so as to help him; not only by earning money, but, by studying with him and hearing him recite. She was looking forward, with all the enthusiasm of her heart, to the day when he should be graduated and a new life should be open to them both.

There was not much that she could do in the way of earning money, for, she was even less brilliant than he and had neither the education nor the initiative to become a stenographer, bookkeeper or even a saleswoman. She tried to take in sewing and to help at housekeeping in the homes of people desirous of hiring help by the day. But, at this, the husband drew the line. She might do her own housekeeping and sewing, but, when it came to doing these things for other people he put his foot down. So far as helping him in his studies was concerned, I do not imagine that it amounted to very much; for, her education and mental calibre were such that she could do little more than hold a textbook while he recited. Yet, the fact that she did that much created in her mind the delusion that she knew considerable about medicine, and it was this delusion that was indirectly responsible for the tragedy which I am about to relate.

She was subject to the failing referred to at the start, namely, of using one technical term when she meant another that resembled it in sound or in some way was associated with it in her mind. She was not a Mrs. Malaprop or a Mrs. Partington, mangling the names of things; she did know the correct names, but, unconsciously substituted the wrong ones. In

*This peculiarity of expression is known as heterophasia, heterophemia, or heterolalia, according to Dorland's "Medical Dictionary."—Ed.

conversation with her, I had frequently observed this failing, but, had never imagined that it would lead up to a tragic result.

The ambitious pair had come to Chicago from some country place, in the hope that here the opportunities for finding employment would be better. They had no friends in the city, except a certain Doctor Bly, who, I believe, was a distant relative. They two were very much attached to this Doctor Bly, and he, in turn, appeared to entertain for them a high regard, tinged with sympathy for their hard struggle and their ambition to work out a career.

As Doctor Bly resided at some distance, while I lived quite near to them, they called me, on one occasion, to prescribe for Mr. Carson for some minor ailment. They were very grateful and appreciative of all that I did for them, and I, in turn, rather liked them for their evident sincerity of character and felt a strong sympathy with their efforts at self-improvement.

In forming friendships, I have always believed in the principle that sincerity of character is the chief thing to look for; and that, where that is found, one can afford to overlook such minor matters as lack of brilliancy, personal oddities, or even little faults and vanities such as most people are burdened with. I have always said that, if we wait for perfect people in selecting our friends, we shall go through life without finding any. So, as I came to know the Carsons better, my regard for them increased.

They lived, of necessity, in a cheap neighborhood, among people of the humbler working-class. These neighbors soon discovered that the husband was a medical student and so, often consulted him in their little ailments. In those days, the medical-practice act was but loosely enforced, and unlicensed doctors were much more common than at present; so, Student Carson gradually accumulated a modest stock of drugs of the simpler kind, and occasionally treated the neighbors when urged by them, although he frankly told them that he was not a graduate, and never charged a fee. But, they nearly always voluntarily paid him something out of their scanty means. I think that he never dispensed a drug without first discussing its safety either with the corner-druggist, Doctor Bly or myself.

One evening, Mrs. Carson called me at about 10 o'clock, asking that I call to see her husband. She told me that, about an hour before, she had given him 10 grains of quinine for a cold, but that it seemed to have made him very nervous and that she felt a little puzzled. I found him, as she had said, very nervous. He said he felt as if he were to fly to pieces; he was very wide-awake and had some muscular twitching. His pulse was a little irregular and his temperature about a degree above normal. He had not a single one of the characteristic symptoms of morphine poisoning, and, consequently, the possibility of that did not enter my mind. The pupils were a little dilated, the breathing was normal, and the face somewhat paler than normally. I had known large doses of quinine to produce great nervousness, so, I thought nothing special of it. He requested me to give him a hypodermic of morphine in order to put him to sleep; but I told him that the nervous effects of quinine were best controlled with bromides. He acquiesced and, so, I gave him a good dose of potassium bromide and went home.

At about 2 o'clock in the night, Mrs. Carson called me again and said that she could not wake her husband. She said that he had gone to sleep soon after I left, and she had done the same. When she awoke, she heard him breathing heavily, and, finding that she could not arouse him, she became alarmed and called me. I hurried over and at the first glance, recognized a complete picture of morphine-poisoning. There were the pinhole-pupils, the cyanosed face, the extremely slow, stertorous breathing, the slow and feeble pulse. All the symptoms were intense and the case looked hopeless.

Mrs. Carson once had seen a friend die from apoplexy, and her first question was whether it did not look like that. I knew that there had been a terrible mistake somewhere, so, I did not mention morphine, and parried her question with the answer, "Yes, or congestion of the brain." I asked that she show me the quinine, which she said, she had bought at the drug store that evening. She brought me a bottle containing a white powder. It was a

vial of the kind in which druggists get one-eighth ounce of morphine, from the jobber, and it bore the scarlet morphine-label with the skull and cross-bones. I said: "Why, this is labeled morphine!" Then she explained that the druggist, from whom she bought the quinine, had put the powder into an empty morphine-bottle, as a matter of convenience to her, and had called her attention to the discrepancy in the label. I thought it incredible that the druggist should let a drug go out thus incorrectly labeled, but, I said nothing just then.

Making an excuse to go to the kitchen, I dropped a little of the powder into water. It dissolved promptly, proving that it was not quinine. I felt certain that it was too late to avert a tragedy. So, I told Mrs. Carson that I was going out to call Doctor Bly, and then I should go home to get something that I needed. I wanted a stomach-tube, although it did seem too late to do any good. When I got back, I saw Doctor Bly coming and, just as he arrived Mr. Carson died.

I took the doctor aside and told him all that I knew. He insisted that we should not tell Mrs. Carson that she had unwittingly killed her husband. Knowing her, as he did, he felt certain that the shock would result either in death or insanity.

We left her under the impression that the cause of death had been cerebral hemorrhage, and then went to see what the druggist had to say. The latter told us that Mrs. Carson had asked for 20 grains of morphine. When he remarked that that was a good deal, she had replied: "Oh, you know my husband is a medical student and knows all about drugs. He sometimes prescribes for the neighbors." Knowing this to be a fact, he had made no further objection, but, had put the drug into an empty morphine-bottle and called her attention to the fact. She evidently believed that she had asked for quinine and understood the druggist to mean that he was calling her attention to the discrepancy between the label and the contents of the bottle.

She was not bright enough to see that no druggist would let a drug go out incorrectly labeled. She had gone home and given her husband half of the 20 grains of morphine. The enormous dose apparently had so overwhelmed the stomach that, at first there was a temporary paralysis of absorption, and, so, the true signs of morphine-poisoning had not set in at the time of my first visit. I could the more readily believe the druggist's statement, that the woman had asked for morphine, because of the fact that during the night she had made the same mistake in conversation with me, confusing the two names.

We then went to see the coroner, because, if an inquest was held, it would be impossible to keep from the wife the knowledge that she had killed her husband. Doctor Bly was strongly of the opinion that this should be done, as he felt morally certain that any suspicion that she had done it intentionally was quite out of the question. The doctor had known them both from childhood, and felt certain that her complete devotion to her husband was unfeigned. There was no possibility of another man in the case, and she had nothing to gain and everything to lose by her husband's death. She was left alone in the world, without a friend or relative, and no way of living except by hard and poorly paid work. In view of all these facts, I was inclined to agree with the doctor's reasoning.

The coroner was personally known to both of us and gave us an attentive hearing. He questioned us closely as to the possibility of the woman having had a motive for getting rid of her husband; but, when he had heard all the facts, he expressed himself satisfied that the affair had been an accident and that it would be an act of mercy to keep the widow from learning the truth. Said he: "I am willing to help you to this extent, that I will waive the necessity for an inquest, provided that you will lay all the facts, just as you have given them to me, before the Commissioner of Health. If he is willing to accept acute cerebral congestion as the cause of death, that will end the matter. There is, I believe, brain congestion in opium-poisoning, so you will be telling the truth, although not the whole truth."

The coroner and the Commissioner of Health were at that time of opposite political parties, hence, were mutually a little shy of each other. For this reason, the coroner cautioned us to be tactful in our

interview with the commissioner and to make it clear that he (the coroner) was entirely willing to abide by any decision that he (the commissioner) might make. We found the latter in much the same attitude as the coroner; he was willing to stretch a point, for the sake of the widow, but, he hesitated about giving a political opponent a chance to accuse him of failing to do his official duty. We suggested that it was an even break between them—that he had as much of a hold upon the coroner as the latter had upon him; that there were only five of us in the secret, and that we all had a common interest in keeping our agreement, if one were made. He finally agreed to accept our view of the matter, only recommending that the cause of death be given as cerebral apoplexy, as this would be less likely to excite inquiry. If we said cerebral congestion a very natural inquiry would be as to what had caused the congestion. It was so settled and the poor woman spared the knowledge of her dire mistake.

I watched her career for several years, to see whether there was any indication that we had made a mistake, and that she had been a consummate actress guilty of murder. But, as time passed I saw that there had been no duplicity. She was completely prostrated with grief for a time, but, gradually took up her burden and earned a scanty living by sewing and other housework, until her death, which occurred seven or eight years later.

People do not commit murder without a motive, and this woman's life showed that there could not have been a motive for an act by which she had nothing to gain and everything to lose.

2920 Warren Ave.

A Common-Sense Essay on Diet

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[*Continued from May issue, page 339.*]

Condiments

Though the condiments probably are not as long in use as food itself, the origin of their use is at least so far back that it antedates the beginnings of history, and they have played an important part in the dietary in all ages. Consisting, in their essentials, of certain molecular groupings of carbon and hydrogen, they constitute the essential, or volatile, oils, and are potential forcebearers; by oxidation, their composition becomes more simple, energy thereby being set free. By reason of the minuteness of the dose which their intensity of action necessitates, they can enter the body only in negligible quantities. Thus, in the real sense, they can not be classed as foods, important as they often may be as accessories to food.

The spices convey a definite stimulus to the digestive organs, so that the food that has been properly seasoned will promote a fuller digestive reflex than is excited by food that is unspiced, other things being equal. While it is true that, the better the health, the less is the need for spicing, so that the sound body will feel the more satisfied with the plainer fare, there are bodily conditions, even among the comparatively healthy, that respond with more alacrity to the savory food, which, therefore, through the condiment, becomes more digestible. Thus it is as digestive adjuvants of positive efficacy that the condiments should be classed with the articles of food.

Condiments as Correctives

Nevertheless, there are times when the value of the condiment is that of a corrective, rather than that of an adjuvent proper, and this may occur in two classes of cases, namely, (1) when the body has passed from health to disease, when the correction will be, not of the food, but, of the morbid state of the mucous membrane; (2) when, even though the body be in health, foods that are difficult of assimilation are being taken, as, for instance, the fatty or richer kinds. For this reason, more than one writer has held that the condiments belong in the dispensary quite as truly as they do in the kitchen. They possess valuable antiseptic powers, while

they stand forth prominently in the pharmacopeias in association with the purgative and the bitter principles, although in this role they are commonly known as carminatives.

The Relation of Wines to the Diet

Wines, the same as condiments, belong to the table, but, unlike condiments, not to the kitchen; and their use with food is a wider one than that of the condiments, and perhaps even antedates it in custom. While there are many ingredients in the complex constitution of wine, its value rests upon just one, namely, its *alcohol*

Alcohol is composed of 2 atoms of carbon, 6 of hydrogen, and 1 of oxygen, and its action on the human organism is that of a stimulant, at least principally. Nevertheless, it also is a food as well in certain conditions, it having been found, by very positive experiments, that about 95 percent of the alcohol ingested is oxidized and probably converted into carbonic acid and water. Thus, as a food, alcohol liberates energy within the system or, more properly, perhaps, brings out the reserve energy, an energy which, if utilizable only in its lowest form (heat), will serve for the purposes of added temperature and in the place of other kinds of fuel.

Alcohol as a Stimulant

By the term "stimulant," is meant something that causes liberation of energy that already is within the body, stored energy The stimulant calls upon the body to expend that which it has hoarded, and alcohol is capable of setting free and making dynamic the potential energy stored in the tissues. The theory upon which alcohol is given is, that, in case the machinery of the body threatens to stop because of lack of driving energy, the stimulant supplied will set free a certain amount of the stored principle, thus averting the danger for the time being. Of course, the process is limited, it can not be continued indefinitely, the bounds being set by the amount of reserve force possessed by the individual, beyond which to go would tend toward exhaustion. For, while alcohol is a true food and, as such, conveys energy into the system, this energy is but slowly developed, and, as it is being liberated, the alcohol ceases to be, while the stimulant effect is quickly produced, traveling centripetally until it reaches the center, when it unlocks the dose of energy that, escaping along centrifugal lines, manifests itself in muscular contraction.

Life itself seems to be, in so far as it is automatic, a succession of reflex acts induced by stimuli—stimuli presented, accepted, reflected. Each stimulus sets the mechanism in motion, each acceptance liberates the energy stored, each reflection directs that energy. And, probably, the stimulus may act anywhere along the line of the reflex arc, as well as at the central station; and it is also probable that anywhere along the same line the irritability of the stimulus may be heightened.

The Utilization of a Stimulant

In order to utilize any stimulant, we should so administer it as to liberate the energy in a manner that will be of advantage to the body. Now, it has been conclusively ascertained that to stimulate with alcohol, for the purpose of inducing continued muscular effort, is worse than useless. It has been demonstrated by evidence of the widest application and the most minute detail that, when prolonged effort, physical or mental, is to be made, alcohol is disadvantageous, and that, in order to secure a remunerative effect, the stimulus must be reflected upon a process that is distinctly beneficial, as that of digestion, provided the body is in health. If a laggard digestion can be started to life by alcohol, if it will procure a better food-reflex, the energy that is set free by it will be repaid by an improved assimilation, and nothing is lost. In health, therefore, alcohol always should be given in association with food, to assist digestion. It is not required by the vigorous body with sound digestion.

Stimulation in Disease

In disease, there often is low anabolism and high catabolism, while, within the tissues, there is reserved power locked up. It is then that the alcohol may be introduced as the key that will unlock and set free this stored energy. Still, even in such a case, it is an unremunerative stimulant, and, for this reason, should be given with food, as a rule, the tolerance of which it will assist, if the food is given in small portions at frequent intervals, as it often must be. The longer the disease seems likely to endure, the more reluctant should we be to begin prescribing alcohol as a stimulant of this nature; for, the greater will be the need of economizing the vital

forces. During the exhaustion consequent upon a journey in a cold storm, alcohol may be administered with beneficial effect upon the whole body; but, in the exhaustion of typhoid fever, it should be given cautiously, if at all, advancing the dose with great care.

Alcohol as a Food

While alcohol undoubtedly is a food, it is, all things considered, a bad food, for the reason that, although, as a food, it brings in energy to the body, as a stimulant, it liberates energy, the latter action coming almost at once, the former with deliberation; and experiment shows that, although the exact quantitative relation of the one to the other can not be determined, the system undoubtedly is the poorer —not, the richer—for its administration. Therefore, alcohol never should be given as a food. Its proper use is that of a stimulant, to be associated with a remunerative food.

Relation of Tea, Coffee and Congeners to Diet

Tea, coffee, cacao, and their congeners. nonessential dietetic adjuncts, rank as stimulants, their action depending upon principles which, in the various members of the group, are either identical or closely allied; their action falling especially upon the nervous, circulatory, and renal systems of the organism, effecting predominantly the central nervous apparatus. It is for this reason that they are so widely used as beverages, in that they remove the sense of fatigue, give mental refreshment, and renew the capacity for exertion both of the body and the mind. (However, much of these effects may be owing to psychical rather than to purely physical causes.)

While alcohol appears to loosen and disconnect the mental processes, inciting recklessness rather than the brilliancy with which it has been credited, these gentler vegetable stimulants apparently raise the plane of the brain's activity without inducing a subsequent depression. Ideas flow, the judgment becomes more accurate, the perception more acute, the capacity for sustained thought greater. The inference is, that this group of stimulants heightens the excitability of the nervous tissues, the potential of whose cells is more readily liberated and thus extracts from the nerve-centers the energy stored up by them.

These Accessories Not Foods

There is no evidence to show that these stimulant beverages bring any replenishment to the system; for, if we regard the minute amounts in which the caffeines, theobromines, and theophyllines gain entrance, it becomes plain that, as in the case of condiments, we may neglect the problem of their oxigenation in the system, however complete that may be. They can not be foods. Consequently, if they serve only to deprive the system of force, they must be used with strict regard for those other processes of assimilation that add force, and the intervals between the ingestion of them must be of sufficient length to allow of a complete recharging of the nerve-cells. Cocoa, the beverage, is different from tea and coffee, in that it is made to carry a food-stuff, while its active principle, as therein administered, acts much less potently. However, as for tea and coffee, moderation and temperance are as imperative as in the case of alcohol. If too much alcohol wrecks, so will too much tea or coffee, albeit in a less notable and shameful manner. Tea and coffee make nervous ruins of the brain, induce insomnia, promote a painful irritation and a degenerative habit, and invite a disaster that is scarcely less dire than that resulting from excess of alcohol.

The processes of healthy life are those of charging and recharging, emptying and filling, and, when we ignore this, closing our eyes to the obvious fact that the one process demands the other, that what is released as energy must be restored as energy, we are perpetrating an excess and inviting an inevitable collapse sooner or later. Condiments, stimulants, all food-accessories as well as foods are neither good nor bad. They merely stand waiting for us to employ for our good or for our hurt, as we may decide. Temperance, alone, is wisdom here as in so many other directions in life.

It may here be added (although it is so well known that it scarcely needs repetition) that tea and coffee, taken even in moderation, may act so deleteriously upon the digestive organs of some persons that they never should be used by them at all.

Following are some of the principal dietetic faults commonly committed, as

enumerated by Dr. A. L. Benedict:

1. Milk diet.—Deficient in iron, contains approximately 4 percent of each organic nutriment, hence, deficient in carbohydrate; yet, levulosuria is liable to occur if 3 liters or even less of it is ingested in a day, corresponding to only 120 Grams of carbohydrate. Introduces too much water if the adequate ration of proteid and fat is exceeded. Especially objectionable for persons exposed to cold or otherwise requiring energy and heat, and for those subject to colon-bacillus virulence, hence, in typhoid fever.

2. Broth (beef-tea) diet.—Contains practically nothing but water, salts, purins, and a little gelatin. Valuable only as a stimulant; distinctly contraindicated whenever purins are in excess, as in gout, lithemia, liver and kidney disease, and having almost no true nutritive value.

3. Egg diet.—Seldom tolerable, nearly lacking in carbohydrate. Each whole egg contains about 8.5 Grams of proteid, 5 Grams of fat; each white contains about 6 Grams of proteid. Thus, 6 eggs constitute a fairly adequate ration of fat and proteid, but, it is difficult to add the necessary carbohydrate alone. If taken raw, the albumin is liable to pass through the kidneys unutilized in part.

4. Spoonful diet.—It makes very little difference whether teaspoon- or tablespoon-measure is used or whether the interval is half an hour or one or two hours, not enough nutriment can, in that way, be given of any liquid or semiliquid food, while the stomach is kept irritated.

5. Raw-meat diet.—Parasites are likely to be introduced, at a time when the patient is especially susceptible. Deficient in fuel-value.

6. Meat-juice and meat-extract diet.—The maximum richness is about 7 percent of proteid, as prepared for administration; hence, nearly a quart is required for the proteid ration, and it is absolutely impossible to give enough to provide the necessary calories.

7. Cereal diets.—Very excellent if properly combined with milk, eggs, butter, and meat; but, usually given without due attention to variety and total ration. Lacking in iron.

8. Ambulant-diets.—While ordinarily fairly well regulated as to negative danger, that is, with regard to positively harmful and indigestible ingredients, too little attention is paid to variety and appetite, and the physician mostly has not the faintest idea of how much proteid, fat, and carbohydrate is actually being received.

9. Frequent-meal plan.—Supposed to avoid overtasking the stomach, especially in cases of atony, dilatation, and ptosis, and to increase the total assimilation in reduced strength. Almost invariably infringes upon the period of physiologic rest for the stomach and, consequently, renders these conditions worse, while, sometimes, greatly exceeding or falling below the total ration needed. Systems of 13 daily meals have been seriously proposed by physicians of influence. As a rule, 3 to 6 meals daily are sufficient.

(*To be Continued.*)

Experiences of a "Rookie" Medical Officer

By Lieut. G. H. CONN, M. C., U. S. A., Remount Depot, Camp Taylor, Kentucky

[*Concluded from August issue, p. 572.*]

WE arrived in Kansas City about twenty hours late and had just enough time to get our supper before starting for St. Louis. We left for our next stop, hoping that it would be more pleasant than the previous one had been, but, if anything, it was worse. Because of the cold that night and the lack of blankets, I can sympathize with anyone whom I know to be inconvenienced by the cold. I utilized my overcoat and all the other clothes that I had with me, trying to keep warm, but, I did not succeed. The porter on that car was a very busy man, as everyone was ringing for him and demanding more blankets. He has not forgotten that night yet.

When morning came, we found that the steam-pipes had frozen up and that that was the reason why we had been so cold. We did not have any water in which even to wash our faces and hands. We went

to the dining-car and tried to eat something, but, it was not a very successful breakfast, as we had to muffle ourselves up in our overcoats. However, we arrived, at about noon, being about five hours behind time. I know that many people think that army-officers always have an easy enjoyable life, but, I am sure that, if they could but know of the experiences of thousands of them, they would very quickly change their minds.

A Rebuke for the Yokel

We always excited more or less curiosity among people in those towns where they were not accustomed to seeing more than one army-officer at a time, as there always were three of us and sometimes more and we always put up at a good hotel and stayed but a day, as a rule, and they were very skeptical as to our business, especially if they could not find out. Several times we were thought to be secret-service men. We had not been allowed, during the past few months, to disclose our business, so of course, when we politely declined to give to questions the desired information, their curiosity was aroused more than ever.

It seems quite natural for some people's curiosity to get the better of them and I never shall forget how forcibly this was brought to my attention one evening when we were standing in the Union Station at Wichita, Kansas, waiting for our train, which was due in just a few minutes. The other two officers that were with me on this trip were both captains and they were always ready to play a practical joke on someone when the opportunity presented itself. We were discussing our trip for the next day, when someone came up and stood between two of us just as if he belonged to the party. He was a very unkempt and rough-looking fellow and not overintelligent-looking and I presume he thought he was going to get some firsthand information about the war directly from someone who knew. Immediately one of the captains recognized the opportunity to play a joke, so he started asking me questions about the pro-Germans that were being arrested and imprisoned; this being just at the time when they were getting so many of them. I replied that I had arrested three just two days before at San Antonio, Texas, and that I was going out from Wichita to look up some more and then was to go up near the Canada line where, I understood, there were several of them hiding; I also told him how many I had arrested, myself, and that we had executed them just as soon as we were sure that they were pro-German and that up to that time we had shot altogether about three hundred of them. I wish you might have seen the expression on that man's face. I guess that he was afraid to ask us any questions, but, he did not miss a word of our conversation. Our train was on time and, as soon as we got inside the coach, we, sure, had a hearty laugh over the yokel. We felt that, if he ever awoke to the hugeness of that joke, it might bring home to him the fact that he should not make any special effort to mix in a conversation that did not concern him. I wish that I might have seen him when he told what he overheard, for, I am quite sure he believed every word of it.

Snowbound in Kansas

There is hardly a state in the Union that has made more history than has Kansas: in the early days when the plains were covered with wild cattle and it was very sparsely settled, it was overrun with banditts and bad men and the policy those days was, to shoot first and talk afterward. We scarcely ever went out on a trip into Kansas but that something unusual would happen to add a little spice to our trip. However, Kansas is different now, its people are as fine as you can find anywhere. Nevertheless, in lieu of something more exciting, one may encounter a sandstorm or a snowstorm: they have them both. I have seen the sand blow so furiously that one couldn't see the sun, and it would sinter into the houses from blowing in around doors and windows. On one of our trips, we got snowbound near a little town in western Kansas, despite our greatest efforts to get through. Luckily, in the baggage car, there was a case of bread and a half-side of beef. So, we backed up to the nearest town and there had the meals prepared for us. We were held here for four days and four nights, the Santa Fe Company, on whose train we were passengers, furnishing us with meals. The snow was so bad that we could not reach any town where we might catch a train on another road. We did not have very good beds, as we had to stay on the train only long enough to eat our meals; for, they had a snowplow work-

ing and were working toward us as fast as they could. Luckily, the train was not crowded and we made beds out of the seats as best we could and used our extra clothing and overcoats for covers. The time passed very slowly, still, playing cards and singing, we managed to get along very well. Finally, the snowplow and another engine got through the snow bank and we were on our way again. Progress was very slow, still, we arrived at our destination, but five days late.

We spent one day in Caldwell, Kansas, which, in the early days was, perhaps, the worst little town of its size in that pioneer region. All the cattle-rustlers, cowboys, gamblers, and bad men from hundreds of miles to the west and southwest came to this place, as it had the only railroad in this section of the country. Cattle that were stolen in Texas would be driven through Oklahoma and shipped from here to the market. That class of men who wanted to get their living for nothing flocked here to win the money from the cattlemen by gambling, while others held them up and took it away from them at the point of the gun. I was told by some of the older residents of the place that in those days they would average a killing for almost every day of the year. Many of the same old buildings still are there, but, all is peaceful and quiet now and the folks are as fine as you can find anywhere.

Carrie Nation's Home

Caney, Kansas, a little town in the southwestern part of the state, will always be mentioned in history and will be noted for the wielder of the little hatchet, who was one of the most violent antagonists that the liquor-interests and the saloon ever had. This was the far-famed Carrie Nation. Whether she was right or wrong, she had the courage of her convictions and, no doubt, the vengeance that she wrought upon some of those men who had directly brought a terrible suffering and blighted happiness and an unhappy home-life of the vicinity in which she lived was not greatly to her credit. However, be that as it may, there will come a time when, no doubt, she will be held in greater respect than she is at present.

At Coffeyville, we visited the scene of that famous attempt of the Dalton boys to rob the bank of that place and in which two of them lost their lives. The same building houses the bank as it did then and the bullet-marks can very plainly be seen in the walls on either side of the alley in which they sought refuge. The man who was credited with the destruction of these bandits still is living here. He was presented with a handsome gold medal after this affair. Many of the older residents can give you a very detailed account of this terrible event. The culprits are buried in an obscure grave in the graveyard on the edge of the city.

Carrying On

I now had been in the service about four and a half months and, while I had made many mistakes, I still was trying to make good as an officer and thus far had not made the same mistake twice. However, I was treated to the surprise of my life when, upon my return to the office, I found a commission as first lieutenant awaiting me. I never shall be more surprised in my life, nor more agreeably so. If you have never experienced anything like this, then I could not make you understand just how I felt.

During the later part of March, we had some business that called us to Denver, Colorado. I had never been in that state and, as we were due there at about 8 o'clock, I awoke just as the sun was rising. What a wonderful sight it is to see the sun rise here, as this country still is virtually a prairie, so that you can see ahead for miles. Pike's Peak, which is about 75 miles from the railroad, was easily seen and you could very plainly see the snow that capped its peak. It did not look to be more than ten or fifteen miles distant, at the most. As you pass from the Union Station to the city, there, above the large arched gate, is the word, "Mizpah," which means, in effect, "May God watch over you and keep you safe while we are absent one from another." But, that is intended for the eyes of those that are departing from the city and what a wonderful thought that is to leave with one who is departing. Denver is, by far, the most beautiful of any city that I ever have visited. I wonder why other cities do not adopt a similar slogan, rather than one that savors of commercialism.

It was during our few days' stay in this city that I had the most embarrassing experience in my life. I had decided to call at the hotel where one of our men was staying and to whom I wanted to give instructions as to a certain duty for him

to perform. I left my car standing on the opposite side of the street and walked in to the hotel and remained, possibly, ten minutes. As I left the hotel and started toward my machine, three men walked boldly and quickly up to me, and, before I realized what had happened, they seized me by the arms and held me fast. I demanded at once their right to hold me in this manner and they showed me their detective-badges. I assured them that they must be mistaken in their man, as I had done nothing for which I should be treated like this. I was very indignant and protested forcibly against their holding me, but, they insisted upon taking me to police-headquarters. I was very persistent about being allowed to prove that I was not the man they wanted and finally they consented to accompany me to my hotel, and there convinced them of their gross mistake. The man that they were after was a civilian who wore an officer's uniform and who would go into business houses and make a purchase and then give a check much larger than the costs and then get away with the change. His checks were worthless, and he had passed several-hundred-dollars' worth in two days.

It was but a few days later that our business again called us to Denver, and on this trip we had the good fortune to escape what might possibly have been, a fatal catastrophe to many of us. We stopped at about an hour's run out of Denver, just at daylight, to take on board the train-despatcher, who had been seriously burned early that morning. He poured into the stove, what he thought was kerosene, to start a fire, but, it was gasoline. However, he stuck to his duty and worked his semaphore, and thus stopped a fast passenger-train with which we most certainly would have collided, with the most appalling consequences. This man's last thought was, his duty, and he performed it well. Just how many lives he saved no one knows; but, at 9 o'clock that day, this young hero breathed his last.

It was not long before I received orders sending me south to a camp in Georgia. It was in May and we had just had a heavy rainfall, and, when we were just a few miles from the Arkansas line, we were held up about twelve hours at Thayer, Missouri, by the high water. We were, at last, able to proceed, but, only very slowly, as this, we were told, was the worst flood they had experienced in more than forty years. For a hundred miles or more, the water was covering the ground on either side of the tracks anywhere from a few inches to several feet. At places we could see for two miles or more, and the entire country was under water. At other places, the water stood to near the top of the houses and barns, while some of them had been floated away from their foundations.

A Costly Bit of Knowledge

I had a little business at home that I wanted to care for personally and I wanted, also, to see the folks for a short visit, so, as soon as I received my orders, I left my new station by the way of my home and stopped there for two days. I arrived at my new station and reported to the commanding officer. The latter looked at my orders and said, "Where have you been? You should have been here three days ago." I told him that I had passed through my home town and stopped over to care for some business. He said, "Is that the only excuse you have for being late?" I answered, "Yes, sir." Then said: "You put that in the form of a written statement and hand it in to me." He added: "You look up A. G. O. No. 68 and read it carefully." I did so and found that, when an officer is transferred from one station to another, he shall proceed to his new station without any unnecessary delay. When my next pay-voucher came, it was short fifteen dollars. It cost me fifteen dollars to learn the meaning of order Number 68, and I shall not soon forget that.

Nothing unusual happened at this station during my stay here, which was only about a month. I was fast beginning to realize that, during the wartimes, it is best not even to hazard a guess as to what the morrow would bring forth, but, then, I think that almost everyone in the army entertains some hope of being transferred to some particular place to which he is partial or to some particular duty that he desires. I had been here almost one month when I began to think that I might be left here for some time, when I received my orders to report to a camp in North Carolina.

I reported to this camp and found one of the handiest camps that I ever have seen, as regards proximity to the city. The city here was just at the edge of our camp.

Here I met several of my friends with whom I had been stationed at Kansas City, and also some from some other camps where I had been stationed.

I had been here but a little more than a week when I was put in charge of a trainload of horses and mules that were being sent to a point in Virginia. I had with me six enlisted men to help care for the animals. We reached Danville, Virginia, at about seven o'clock in the evening and we were getting hungry, but, without any prospect of getting anything to eat before morning. Asking the conductor, the latter told me that it would be at least three-fourths of an hour and maybe an hour before the train would leave here, as they must change crew here and that we should have plenty of time to get something to eat. I requested him to tell the new conductor not to leave until I was on the train with my men. We went to the Union Station and secured a lunch as soon as we possibly could and then started across the long bridge that spans the river separating the station from the railroad-yards. At the head of the bridge, we were stopped by a bunch of boys who told us that our train had pulled out and left us behind. I did not attach much importance to that, as I thought they had drawn up to take coal and water or make some repairs on a car. I at once went to the yardmaster and was told that they had gone out under orders.

Here I was with four of my men, no train by which I could overtake my own train, and this train on its way without me. It did not take me long to declare myself and, while they were very reluctant (as railroad employes usually are) to do as I ordered, it gradually dawned upon the despatcher that my authority was final on the train carrying the animals, and so, the departing train was stopped at the first station reached about ten miles distant. I secured a motor car to convey us to that place; and under my promptings, it was a wild ride, indeed, for, I did not want to delay that train unnecessarily. When we arrived, the waiting crew was considerably peeved, and attempted almost everything else to make me feel that they were running the train to suit, not me, but themselves alone.

It was not long after, that a trainload of horses and mules was shipped to be used in the construction of a new camp. When we arrived there, no provision had been made for stabling the animals and no one had been detailed to care for them. As there were no corrals or picket lines, we tied them in the woods to ropes that we stretched between the trees, but, as there were six hundred of them, we had all the work we could possibly do in caring for them. We secured hay and grain, to feed these animals, from all the little towns 'round about; and let me say, it kept us very busy.

Looking Back

I have been in the service now for one year and have begun to like many parts of it. It has many disadvantages to which the average person must adjust himself; yet, it all works out in time. Military discipline is one of the things that it is very difficult for the average man to submit to, yet, after a while, the necessity of it becomes a settled fact with one. Once, during this time, I was on the list of officers that were to be sent to France. I had always wanted to go and do yet; nevertheless, there is a peculiar feeling that sweeps over you when you know that you are going. You wonder how long you be gone, how you will stand the voyage, how you will like the service abroad, whether you will return, and many other questions. This feeling all passes away in a few hours and I am sure now I could embark without the least bit of fear or trembling.

As you learn more of army-service and as you grow older in the service you realize that almost everything in the army works out pretty well, after all.- Not many changes could be introduced to the advantage of the service. If it could be done, it would be, you can rest assured about that. The average soldier learns many things in a few months, that it would take him months to learn, that make him a better man in every capacity, and a better citizen. The Army of the United States aims to deal fairly and squarely with everyone of its men and I can truthfully say that I believe it does succeed better than any other organization of any size in the world in accomplishing this object. I can not see how anyone could serve in our army and not leave the service a better man than when he entered it. I am sure that every other American soldier also feels that our army is the finest in the world and that it is the highest honor that could come to any man to be able to serve in it.

What Others are Doing

AS TO THE BACTERIOLOGY OF INFLUENZA

In *Public Health Reports* for June 27, Dr. Edwin O. Jordon presents an interesting communication upon observations made in patients affected in an influenza-epidemic in the Student Army Training Corps of the University of Chicago; also in civilian influenza-patients in various hospitals in the vicinity of the University of Chicago; further, in patients mainly university-students who contracted influenza in December, 1918, to February, 1919, after the main Chicago epidemic had subsided; and, lastly, in cases of tonsillitis, "colds," and other respiratory-tract affections occurring during and subsequent to the epidemic.

One object, especially, in view was, to determine the relative frequency and abundance of the Pfeiffer-bacillus in the upper respiratory tract of persons suffering from influenza and from common nonspecific respiratory-tract-infections. Another was, a series of similar observations upon the diplostreptococcus-bacillus described by Mathers (*Jour. Amer. Med. Asso.*, Nov. 23, 1918, p. 1733).

The results of these investigations and observations show that the bacteriological picture in influenza is not a uniform one, so far as nose- and throat-floras are concerned. Daily examinations of a number of selected typical cases, both mild and severe, have shown no one organism constantly demonstrable in large numbers by the methods employed. The two organisms most commonly and abundantly present in this series were, the Pfeiffer-bacillus and the diplococcus or streptococcus found by Mathers at Camp Meade.

THE VICIOUS CIRCLE OF PNEUMONIA

While leukocytes combat infection, nature often works in a vicious circle, which it is the duty of the physician to break. In pneumonia, for instance, the right side of the heart carries a burden and the pulmonary second sound is accentuated. This increases the pulmonary congestion and the vicious circle continues until the heart is exhausted.

In order to break this vicious circle, A. B. Grubb (*Med. Council*, June) administers full doses of nitroglycerin every half hour for the first five to seven days of the attack, for its vasodilator effects, through which blood pressure is lowered and pulmonary congestion limited.

The editor of *The Medical Council* points out that the effect of nitroglycerin varies in different individuals and that toxic effects, especially respiratory failure, must be guarded against. In his opinion, it often is preferable to attain to large doses but gradually. This is quite in accordance with our own custom of administering nitroglycerin (glonoin) in doses of 1-250 grain, which may be repeated until specific symptoms make their appearance. The use of this remedy in combination with aconitine and other synergists, has been recommended in CLINICAL MEDICINE for many years, especially in pulmonary congestion, for the very purpose that is now named by Doctor Grubb.

WARTIME AND SMALLPOX

It was unavoidable that, during the stress of the Teutonic invasion and the necessity imposed upon the French people to send all their ablebodied men to the trenches and to devote their efforts to the winning of the war, the vigilance of the sanitary police in the civil population became lessened and that this, together with other factors, contributed to promote the occurrence of epidemics that appeared in France among the civil population, as well as in the armies.

At a recent meeting of the Academy of Medicine, Doctor Wurtz reported that, last April, there had been recognized fifteen cases of smallpox in Paris and twenty-two such in May; while, since the beginning of war up to March, 1918, hardly any

cases of smallpox had been observed among the Parisian population.

The present epidemic is attributed to importation of outside cases and also to the negligence of the people to be revaccinated. It was owing to the nonobservance of the sanitary regulations at ports in Southern France, and in Paris, that numerous smallpox-patients were enabled to enter France during the last year. The French people, especially the women and old men, believing that they were immune, manifested a regrettable objection to being vaccinated. In consequence, there are, at present, several million people in France believed to be susceptible of contracting this indubitably preventable disease. The one remedy that can be applied is, thoroughgoing and repeated vaccination of the entire population.

These observations, it is needless to say, simply confirm the position taken among others by the medical profession. There is constant repetition of proof of the benefits derived from suitable vaccination and from the possibility of delimiting and, indeed, eliminating smallpox as an epidemic disease.

DIPHTHERIA, THE UNCONTROLLED

Under the above title, Dr. B. W. Carey, epidemiologist to the Massachusetts State Department of Health, contributes a study to *The Boston Medical and Surgical Journal* for July 24, that contains much food for thought.

Doctor Carey points out that, save in that period immediately following the introduction of antitoxin, there has been no marked interruption in the incidence or mortality of diphtheria. While in preantitoxin days the average mortality was about 28 percent, in the next 20 years, it was 11.5 percent, and, since 1915, the mortality has fallen slightly, being now about 10 percent.

An investigation of 1,000 deaths from diphtheria showed that 31.5 percent occurred in individuals that had been ill one week or longer without receiving medical attention; 11.8 percent of the deaths occurred in individuals moribund at the time of the doctor's first visit; 7.6 percent occurred in individuals in whom the condition was unrecognized until it was too late for the antitoxin to be efficacious; and 65 percent of the deaths occurred in children 5 years of age or less. The source of the infection was unknown in nearly 90 percent of the cases.

Doctor Carey properly concludes that more attention must be paid to the group of individuals falling within the preschool-age group, and that both the medical profession and the laity should be provided with a more complete knowledge of the prevention and control of diphtheria.

Doctor Carey believes that the time will come when the Schick-reaction test, with its more frequent and intelligent use, will place a large percentage of the nonimmune under care for immunization, and, in accordance with the experiences of the New York City Department of Health, the prevention in that respect would be in direct proportion to the efforts expended.

It has been found that 60 percent of the children of less than school-age, that is, under 6 years, were not immune to diphtheria as determined by the Schick-reaction; and work done in New York by Doctor Park and his associates clearly demonstrated the value and safety of immunization against diphtheria by the toxin-anti-toxin mixture employed by them.

It will be remembered that, some years ago when the Schick-reaction test was first introduced, it was found that a great many infants manifested at birth a congenital immunity from diphtheria but, that this diminished during the first two years of life, so that children between 2 and 6 years of age are peculiarly liable to become subject to diphtheria. It is a logical conclusion, confirmed by actual experience, that those children that are found, by means of the Schick-test, to be non-immune should be immunized against diphtheria in like manner as they are immunized against smallpox by means of the cowpox vaccine. In this manner, the proportion of diphtheria-immune individuals could be materially increased.

In Doctor Carey's opinion, the problem is one for the Boards of Health to solve, and especially for those of large cities; since statistics taken from the Census Bureau show that more than 80 percent of diphtheria-deaths occurred in cities of over 10 000 population. These cities not only had the largest percentage of diphtheria-deaths, but, they also have or ought to have the necessary personnel and equipment for the prevention and control of that

disease. Every city of this class has school-physicians, school-nurses, laboratory-facilities, stations for the distribution of antitoxin, and the necessary regulations to enforce, by law, if need be, quarantine and isolation.

There can be no hesitation in accepting Doctor Carey's conclusion, because diphtheria is justly feared more, almost, than any other disease affecting children; and it should not be difficult to organize the deliberate testing and immunizing of small children, inasmuch as the parents safely can be assured that in this manner the little ones can be definitely protected against this dreaded disease.

THE SCHICK TEST OF IMMUNITY TO DIPHTHERIA

From the *Monthly Bulletin* of the department of public health and charities of the city of Philadelphia, July, 1919, we copy the following timely information:

What is the Schick Test?—A dose of diphtheria toxin is injected between the layers of the skin of the arm. If the person's blood contains antitoxin, nothing happens and the patient is declared immune. If, however, a distinct circumscribed area of redness appears at the site of the injection the test is declared positive, which means that the person does not have in his blood sufficient resistance against diphtheria and is liable to contract the disease.

What is meant by Diphtheria Toxin?—This is the poison produced by the diphtheria germs and is obtained by growing the bacteria in broth for a certain length of time, after which they are killed by carbolic acid.

What is meant by Diphtheria Antitoxin?—This is a serum produced by inoculating the horse with diphtheria toxin. The animal's resisting power causes the antitoxin to be produced in the blood.

Is there any risk to the test?—Absolutely none. When the test is positive the redness which appears gradually disappears on the third or fourth day.

What is the idea of having the test made?—Diphtheria is a very serious disease. About one out of every eight cases is fatal. The infection exists in this city throughout the year, and children between the ages of two and ten are most susceptible. Every father and mother wants to know if their children are liable to catch this disease and if so, how it can be avoided.

The Schick test determines this. There is a serum called toxin-antitoxin which, when injected, confers immunity to those who react positive to the Schick test.

Why should the test be made?—All children over the age of one should have this test made. Nursing infants seem to have a natural immunity to the disease, because of protective substances in mother's milk.

What is a negative test?—If no redness of the skin develops after the Schick test, it means that the blood contains sufficient resisting power to diphtheria. Persons having a negative test and exposed to diphtheria do not develop the disease.

Are adults immune to diphtheria?—After the age of ten the occurrence of diphtheria gradually lessens. Few adults contract this infection and grown persons are relatively immune to the disease. Statistics show 40 percent of positive reactions to the Schick test in children, and 60 percent positive in adults.

Is there no intermediate reaction between positive and negative?—Yes. The reaction may be strongly positive, positive, moderately positive and faintly positive, depending upon the degree of the redness of the skin.

If the test is positive, what is done to prevent diphtheria?—A serum which is a combination of toxin and antitoxin is administered under the skin at three sittings, seven days apart.

Does the toxin-antitoxin serum cause any harm?—No. Local and constitutional symptoms are noted in 20 to 50 percent of cases. These are redness, slight swelling and tenderness of the arm and a slight rise of temperature. The symptoms, if any, disappear within forty-eight hours.

How long does this acquired immunity last after the toxin-antitoxin administration?—In 95 percent of cases previously susceptible, the protection against diphtheria lasts for years, possibly for life. To make sure of the duration of immunity the Schick test can be made regularly every year.

What is the practical value of the Schick test?—In every school, institution, hospital or home where large numbers of children are quartered, diphtheria may break out at any time. By testing every child on admission, one can determine which children are susceptible to the disease. Those who re-

act positively are given the toxin-antitoxin treatment. In this way, diphtheria may be eradicated. If diphtheria breaks out in your home, antitoxin is given to those who react positively to the Schick test. In this way persons immune to the disease avoid the inconvenience of having the serum injected.

A CARRY-ON ASSOCIATION

The June issue of *Carry On*, a magazine devoted to the reconstruction of disabled soldiers and sailors contains a correspondence by C. P. J. Mooney, editor of *The Commercial Appeal*, at Memphis, Tennessee, referring to a Carry-On Association that is worthy of emulation.

It appears that there exists in Memphis a Carry-On Association composed only of men that in some way are physically disabled. If you have but one eye, one leg, one hand, you are eligible to membership. Even if you have but lost one finger, you can become a member. There are no dues. Regarding the work of the Association, Mr. Mooney writes:

"When we meet a man recently crippled, we put him in touch with someone that has been crippled for a long time in a similar way and who is doing something. Thus, if a one-legged soldier comes to town and wants to go to work, we put him in touch with some one-legged civilian. That one-legged civilian tells the crippled soldier what he himself did, how he got along, what sort of job he secured and how he made good.

"At one of our meetings, we had a man with no hands. He worked in a box-factory and made from $4 to $6 a day. Recently, I met a returned soldier who had lost his left hand. I got him in touch with a one-armed railway man, and now the ex-soldier has a job in one of the freight-offices. Some time ago, a young man, whose legs had been cut off by a train, came to see me. He had two fine artificial legs. He could walk as well as a man with two natural legs. He got in touch with a firm selling artificial limbs. He is a walking demonstration of the excellence of a certain kind of leg."

It goes without saying that such an association contains in it the germs of untold good. In these days, when so many men are returned from the army minus some portion of their anatomy, but, plus a tremendous amount of inspiration and courage and grim determination to make good despite their physical handicap, there is presented a stimulus for those of the civilian population that had suffered similar injury in civilian life and who ever since may have been deeply sorry for themselves. Why should not physicians start Carry-On Associations with returned maimed soldiers as nuclei and thus help all those unfortunates, that have been subject to accidents, to an attitude through which they will be enabled to lick circumstances into shape for their own ends, instead of supinely submitting to circumstances?

We believe that such Carry-On Associations could do immense good in many places. What do you say?

HERNIOTOMY UNDER LOCAL AND SPINAL ANESTHESIA

Herniotomy can be performed painlessly under local anesthesia, and under spinal anesthesia, which is the more fortunate as cases are constantly encountered in which general narcosis is contraindicated for some reason or other.

Writing in *The Nebraska State Medical Journal* (July), Dr. Henry B. Boyden expresses the opinion that the rather extensive use of quinine and urea hydrochloride, a few years ago, in local anesthesia and the use of stovain for spinal anesthesia, with resulting wound sloughs in the former and some mortality in the latter, gave rise to an unjust timidity regarding the employment of these methods. However, under a proper mode of procedure, such as is observed in, for instance, Babcock's Clinic in Philadelphia or by Bodine in New York, encouragement is experienced to employ one or both of the methods in question in preference to operating under general anesthesia.

Doctor Boyden's experience has been entirely with procaine, which he considers entirely satisfactory, and with which he feels secure.

A preanesthetic narcotic of morphine and atropine is given both in local and spinal anesthesia in order to lessen any psychic shock and to allay the pain when the analgesia is gone.

The technic employed by him in local anesthesia is first to infiltrate the line of skin incision, using a hypodermic needle.

Then he infiltrates the subcutaneous tissue, using a needle of 15 to 20 gage, and 1½ inches in length. Then he inserts the needle perpendicularly to the skin, penetrating the aponeurosis of the external oblique, which can be felt very definitely, and infiltrates this subaponeurotic area.

In five minutes, the incision is made through the skin, the subcutaneous fat and the aponeurosis of the external oblique. Upon the exposed surface of the internal oblique, one will see the ilioinguinal and hypogastric strands of the iliohypogastric nerves, which are blocked with a few minims of procaine solution at the upper end of the wound. This also makes one careful as, having seen these nerves, one will not cut them as is so often done under general anesthesia.

The internal oblique muscle and the coverings of the spermatic cord are infiltrated, thus blocking any filaments of the genital branch of the genitocrural over the cord. The subserosa of the sac now is injected; if sensitive, an injection of the periosteum around the pubic spine will avoid any pain in the pubic reflection of Poupart's ligament, the innervation of which is derived from the 12th dorsal nerve. Just prior to cutting and tieing off, the neck of the sac is injected.

Doctor Boyden uses procaine, 0.25 to 0.50 percent, in physiologic salt solution and injects 5 to 10 ounces of this solution, but, not more than 8 grains in all, and 1 drop of adrenalin solution, 1 : 1000 to each 100 drops of procaine.

For spinal anesthesia, Doctor Boyden dissolves one grain of procaine in 1½ to 2 mils of physiologic salt solution, withdrawing the same amount of spinal fluid prior to injecting, and having the patient retain the sitting posture for three minutes. Analgesia occurs in two or three minutes. If it is not manifest in six minutes, the injection is repeated. The analgesia lasts from forty-five to ninety minutes and wears off gradually. Sometimes, though, the patient may need, in addition, a hypodermic of morphine.

THE INDICATIONS OF LOCAL AND SPINAL ANESTHESIA

In the article referred to in the foregoing, Dr. Henry B. Boyden declares that spinal anesthesia is indicated especially in elderly people with emphysematous, bronchial or tuberculous lung conditions, or is indicated in myocardial and endocardial lesions; also in nephritic or high-blood pressure conditions.

It is also indicated in any condition of lowered vitality wherein one does not wish to add to the patient's weakness.

While he would not use it in pronounced cases of severe shock, as there is a lowered blood pressure under these conditions, and there is a slight lowering of blood pressure with spinal injections, he has used it in early strangulated or incarcerated hernia and the result of blocking the spinal cord has brought the patient out of the shocked condition during the operation.

Local anesthesia is indicated in the same class of cases that one would use spinal anesthesia in by choice but more especially in active adults with associated lung, heart or kidney lesions.

Excepting with highly nervous people who do not wish to be conscious during an operation and including those with unpleasant ether reminiscences, he operates on hernias by choice under local or spinal anesthesia.

THE MEDICAL TREATMENT OF APPENDICITIS

It is generally accepted that appendicitis is a surgical disease, and, indeed, many surgeons have gone so far as to erect a large "hands off!" sign in all conditions where the appendix may be assumed to be diseased, this warning, of course, being directed to the internists.

Nevertheless, it can not be denied that there are very many instances that we must clinically diagnose as appendicitis, and which progress favorably under purely medicinal treatment, very often, indeed, without being followed by recurrences in subsequent years.

Not so very long ago, the use of opiates for the purpose of alleviating the excruciating pain of appendicitis was condemned wholeheartedly by surgeons, on the plea that it masks the symptoms and obscures the diagnosis. Since Crile's studies on anociassociation, however, the administration of opiates, under certain conditions, for the relief of pain, has been established on a reasonable basis and it is now admitted that the agonies of appendicitis

properly are relieved by means of narcotic remedies, in order to lessen shock.

Dr. S. N. Robertson (*Med. Council*, June) declares that, while appendicitis is a surgical disease, medicinal treatment may greatly assist nature to overcome the infection. The patient must be in bed and kept quiet. At first, nothing must be given by mouth, this being in accordance with the treatment laid down, years ago, by Dr. Albert J. Ochsner. An enema may be given, to clean out the lower bowel, while hypodermic doses of morphine not only will alleviate pain, but, also keep the intestines quiet, so that nature may have a better chance to localize the infection. For the first day or two, hot applications may be employed, while enteroclysis of physiologic salt solution will help to relieve thirst and supply water for the tissues.

In Doctor Robertson's opinion, it is better not to give epsom salt, as this drug liquefies the stools and may add fuel to the fire. The favorable results that have been reported after the administration of laxative salines were in cases of the mild catarrhal type. Doctor Robertson concludes by advocating symptomatic treatment, as it is indicated.

MIGRAINE AN ANAPHYLACTIC STATE

In the issue, for June 28, of the *Gazette des Hôpitaux*, Doctor Laumonier discusses an article originally appearing in the *Presse Médicale*, according to which good results have been obtained in several cases of migraine by administering 7½ grains of peptone of good quality about one hour before the principal meals. It is believed that this procedure does not influence the attack itself, but, rather, the general condition of the organism, owing to which migraine appears more or less severely.

In five cases upon which the report is based, the patients experienced great improvement. The attacks of migraine ceased for as long as the peptone was being taken and its good effect extended to certain digestive disturbances that had been present.

An explanation of this observation is believed to lie in the hypothesis according to which migraine is an anaphylactic phenomenon. It is interesting to learn that the method was suggested by an experience in a very severe case of urticaria depending upon intolerance of all protein substances, both animal and vegetable, and in which a cure resulted from prescribing very small "snacks" a short time before the principal meals; and then, in order to simplify matters, instead of the little "snacks," powders of peptone were administered.

It is understood that this is the method suggested by Besredka for the treatment of alimentary anaphylaxis. The good results observed in the cases reported certainly seem to confirm the view according to which migraine is of anaphylactic nature.

IMMUNIZATION AGAINST ANAPHYLAXIS

In a recent communication to the French Academy of Sciences (*Gaz. des Hôp.*, July 19) Professors Ch. Richet, P. Brodin and F. Saint-Girons reported on certain experiments in which they determined the immunizing action of sodium chloride against anaphylactic shock through the injection of serum.

If, three weeks after a first injection of horse serum, in a dog, the same dog receives an injection of 50 mils of the same horse serum, the anaphylactic reaction takes place without fail; it is brutal, sudden and intense and in most cases rapidly fatal.

If, however, in the place of the undiluted horse serum the same quantity of the same serum is injected but diluted in nine times its volume of isotonic solution of sodium chloride, hardly any symptoms eventuate. It seems, therefore, that the sodium chloride possesses a protective action against the development of the anaphylactic reaction.

The experimentors add that, in their opinion, it is justified to hope that from this interesting experience it may be possible to elaborate a new method of immunization through which anaphylactic shock will be prevented.

Let's Talk it Over

Letters from France—XII

ASSUMING that the League of Nations will be accepted by the different nations and become part of the Peace Treaty, then the necessity will soon arise for such a league to exercise certain clearly-defined functions, which at present are associated with every well-organized State. Such functions will be of an international character and will be exercised by the League, by virtue of its being of the nature of a superstate. These functions are legislative, judicial, and administrative. Their nature and scope are, or will be, defined in the League Covenant. Labor and industry also are provided for in the constitution.

But, what about health? This vital subject that concerns each nation, and every individual in it, will, surely, have to be considered. If it is not dealt with in the original draft of the treaty of the League of Nations, it will have to be taken up through a subsequent amendment, which, naturally, involves great delay. This is certainly the most opportune time to consider two of the great issues directly concerning all of mankind—the preservation of health and the prevention of disease.

The time is quite ripe for the questions of sanitation and hygiene, both physical and mental, to be taken up, and I would suggest that the Peace Conference create, through the League of Nations, an international bureau similar to the proposed Bureau of Labor. For this purpose, an article, somewhat like the following might be inserted in the text of the treaty of the League of Nations, viz.:

"The high contracting parties will endeavor to secure and maintain sanitary and hygienic conditions of living for men, women, and children, both in their own countries and in all countries to which their commercial and industrial relations extend, and, to that end, agree to establish as part of the organization of the League a permanent International Bureau of Health."

A health-crusade could be started, aiming to establish a standard for decent homes to live in and for safeguarding health throughout the world. Such a crusade, if properly conducted by a competent International Health Board, would bring about most beneficial and lasting results. The need will then arise for efficient health-organizations in each country. Some countries are fortunate enough to have such health-organizations at the present time, others do not have them. The reason for this is, that competent local or national health-boards depend for their efficiency mainly upon the individual health-officers and sanitary engineers, who make up the health-organizations both in the smaller and larger communities.

Realizing the great need, at the present time, of such men and women as would be competent in health-matters, I have strongly urged, in a letter published in *The New York Herald* for January 8, the establishment, by the American people, of a large International Institute for Hygiene, Sanitation, and Sanitary Engineering in Paris as a "Victory Memorial," to commemorate the aid brought by the United States to the Allied cause in this war.

Such an institute would turn out efficient health-officers and sanitary engineers, who then could go forth into their respective communities and put into practice the best and most modern ideas on sanitation and hygiene.

A conference of the leading authorities in medicine, surgery, bacteriology, hygiene, and sociology met at Cannes, on April 1 last, to formulate a program of world-

*It always must be remembered that these notes were written several months ago and that they are dealing with events now in the past.—Ed.

wide scope, the plan being to continue, in time of peace, with the necessary modifications, the work, magnificently humanitarian in purpose and practical in character, that has been accomplished by the various Red Cross organizations during the war.

There is no necessity to describe that work in detail. Its benefits are recognized by all, for, they have not been confined solely to the combatants. In only too many cases, the sufferings of the civilian population of the battle-swept area would have been immeasurably greater but for the energy, initiative, and self-abnegation of Red Cross workers. In this extension of war-relief work, the American Red Cross organization has been the pioneer and has achieved notable results. Under the vigilant and enlightened guidance of Mr. Henry P. Davison, formerly chairman of the War Council of the American Red Red Cross and now chairman of the Committee of Red Cross Societies, its services have brought aid and comfort, not only to the wounded and sick of the Allied Armies—French, British, Italian, Serbian, American—but, also, to destitute and suffering civilians.

The purpose of the conference at Cannes was, to outline measures necessary to widen still further the field of activity of the Red Cross societies in times of peace, the first step in that direction being, the organization of an International Council and Bureau of Hygiene and Public Health, which will map out the work to be undertaken in the new war that is just opening, a war against disease. Although the organizations, it is to be presumed, will retain their respective national character, they are to combine and form what may be called a Universal Red Cross Society, with its activities coordinated under a central committee of direction.

The importance of this great-hearted initiative can not be overestimated. One of the underlying causes of the discontent now prevailing in so many parts of the world is, the distress and disease that have been engendered by the war. What the League of Nations should be for maintaining peace, this union of Red Cross societies aims to be for protecting public health. It places child-welfare in the forefront of its aims, and rightly; for, unless infancy be safeguarded, it is a never-ending task to create satisfactory social conditions. All humanity has a direct interest in the great project which the Red Cross societies, on the initiative of the American organization, are preparing to undertake; its progress will be followed everywhere with sympathetic attention and its success will be hailed with universal thanksgiving.

At the request of the American Army Medical Corps, the professors of the Paris Faculty of Medicine will give a series of lectures on the progress made in medicine by the French. The lectures, which will be public, will be given on two afternoons of each week in the large amphitheater of the Faculté de Médecine. The first lectures, announced for the 25th and 28th of this month, will be delivered by Prof. Ch. Richet, who will speak on the work of Descartes, Levoisier, Claude Bernard, and Pasteur.

Some eminent French, British, and American scientists left the Gare de Lyon last night for Cannes, to take part in the conference of the Red Cross societies that is to begin there tomorrow. In the French delegation, were Doctors Roux, Vidal, and Rist; the British delegation included Sir Robert Philip, Sir Ronald Ross, Colonel Lyle Cummins, and Dr. F. W. Menzies, while among the Americans were Major W. P. Lucas and Major A. P. Garvin.

Doctor Zingher, one of our army surgeons, thinks it high time that the question of health become a matter of government and that a department of health be provided for in the League of Nations.

The Permanent Blind-Relief War Fund for the soldiers and sailors of the Allies, an American organization founded by Mr. and Mrs. George A. Kessler, of New York, is increasing its already extensive activities by opening a large reeducational institution, in Lille, for those blind soldiers of Northern France that are anxious to return to their now liberated homes.

The French Government requested the fund, only a few days ago, to carry on this work in Lille, so as to enable more than 200 of the French blinded who come from these recaptured devastated provinces and who are scattered through-

out the various blind-institutions in France, to be reeducated near their families, from whom they had been separated and of whom they had heard nothing for more then four years.

The organization responded immediately through M. Brieux, the governmental head of the commission for the blind in France, that it would be pleased to support a school in Lille for these blind soldiers, who are overjoyed at the prospect of returning to their native land.

The organization has established altogether seven institutions for the blind in France and has contributed to the support of many others. It is a permanent contributor to St. Dunstan's, in England, which is the leading blind-institution of the world. It has grown to such proportions, since its organization in the early days of the war, that it is now taking care of the blind of eight nations. It has recently been called upon to take entire charge of the Serbian blind in Tunisia, the Portuguese blind, the Roumanian blind, and 800 of the Italian blind, of whom only 100 thus far have been taught trades or were reeducated in any way.

The fund's most recent contribution is the sum of $100,000 to the American Red Cross for the American blind. The patrons of the fund are: the President of the United States, the President of the French Republic, the King and Queen of England, the King and Queen of the Belgians, and the King and Queen of Italy.

The executive offices of the funds at 75 Avenue des Champs Elysées are in charge of Mr. and Mrs. Kessler and Mrs. R. Valentine Webster, the latter at present being in London, at St. Dunstan's. Mrs. Webster has been called to Paris to resume her work in overseeing the various institutions of the funds in Paris, as the French Government has just put at the disposal of the fund two trains of 20 cars to bring the blinded soldiers from the Chateau of Rochecorbon, near Tours, to where they were taken last summer when Paris was being bombarded.

Everyone is called upon, in a memorandum just issued by the British Local Government Board, to assist in limiting the epidemic of influenza. Other infectious diseases can be checked by the public-health authorities, but, in influenza, it is the individual that must take measures to protect himself and to avoid conveying the disease to others. As influenza is also prevalent in France, it may be that the following recommendations will be of benefit to residents in France, also. The reason is, that influenza comes on suddenly, rendering isolation impracticable, and that it is distributed, from person to person, by coughing and sneezing. Even in talking to a person, an influenza-patient may convey the causative germs.

The most important of all preventive measures, therefore, is, not to cough without covering one's nose and mouth. This precaution cannot be too strongly impressed upon the public. The other great measure is, to avoid contact with persons found to cough or sneeze, and to keep out of crowds. Also, if every person having a feverish cold or any other symptoms of influenza would remain in a room alone for a few days, the number of sufferers from the disease would be greatly reduced by that simple precaution.

Flushing bed-rooms, living- and working-rooms with air, the wet cleaning of offices, shops, public vehicles, and other places of that kind, and spraying these places with disinfectants are recommended by the local government-board. Dust is very dangerous, especially when contaminated with expectorations. During the prevalence of influenza, expectoration in any public place or in the home should be strictly avoided.

Among the greatest danger-places are, railway-carriages, omnibuses, and tramway-cars, to which may be added public telephone-callboxes. All these should be well ventilated and disinfected from time to time. The expense may be considerable, but, the loss through infection will be ten-fold greater.

Notices warning against coughing, sneezing, and spitting should be posted in all public vehicles and places of assembly, for, in no other way, can the importance of avoiding these dangerous practices be impressed upon the public.

It is probable that infection is chiefly spread during the earlier stages, says the memorandum; that is to say, while one thinks he has only an ordinary cold. Great care, therefore, is necessary while the epidemic lasts, and symptoms that ordinarily might be regarded of little importance should be taken seriously. Workers can not lay up for every slight cold; but, people of leisure would act prudently by doing so. Everyone should look upon a cold as the possible beginning of influenza and, if

possible, should remain indoors for a day or two.

Most people place their reliance upon medicines; but, these are of very little real value. The chief thing to do is, to avoid getting infected or transferring the disease to others, by carrying out the suggestions here given.

In Paris, the municipal returns show that the number of deaths from influenza, on Wednesday, was 189, on Thursday, 209; these numbers being considerably less than the totals of previous days, although undue importance should not be attached to the reduction until further evidence is available. It should be noted says the *Temps*, that, to these figures, there should be added or partly at least those attributed to ailments of the respiratory organs, pneumonia and bronchopneumonia, an appreciable number of which originate in influenza.

Supplementing the measures taken by him against influenza, the undersecretary for the medical service has decided that, not only doctors but also mobilized pharmacists must be called in to aid the civil population.

At Grenoble, the Mayor has decided that the reopening of the schools and colleges, which was fixed for November 4, is to be postponed. Religious ceremonies in the churches have been suppressed.

[In view of the fact that we must expect influenza to prevail again this coming fall and winter, these notes may present some good points for the instruction of patients.—Ed.]

Major John Van Schaick Jr., acting Commissioner, for Belgium, of the American Red Cross, has sent in the following report on the occupation of Bruges by the Belgians:

"The American Red Cross entered Bruges the day after the Germans marched out. The 58,000 people of Bruges are delirious with joy. I had come to believe that the Flemings were stolid, but, they were not so today. Belgian flags fly everywhere. Everybody wears the colors. American and British flags are seen on all sides. I entered Bruges with three Belgian ministers. It was on ovation. Cheering crowds lined the sidewalks. They were cheering Belgians soldiers; watching for the King and Queen, cheering everything new. We visited the cathedral. It was packed. The bishop was saying a mass, and it was a thanksgiving for deliverance. The fighting goes on just east toward Ghent.

"I am in a big house. I have a marvelous room, but, a bed of straw. 'The Germans took all our wool,' said the Rev. Comte Van Den Steen de Jehay, brother of my hostess. "Oh, what a brute that German officer was. I told him my sister had had a terrible operation, that he must not take her mattress. All he said was "If she is as sick as that, all she has to do is, to die." 'The Flemings are not emotional' said the Count, 'and the Brugeois are especially cold, but, how they have cheered today.' We came to Thourout and here caught up with Dr. De Page and his new hospital installation. He has taken three big hotels at Ostend and an old convent at Thourout, with American Red Cross money. He called out to me, 'we never could have done it without you people of the Red Cross.'"

Once upon a time, Grand Dukes and other distinguished personages, when they wanted to be shown the seamy side of Paris, used to be taken to a "twopenny doss" Fradin's at 35 Rue Saint Denis, near the Central Markets. Here, they were able to see a crowd of poor wretches, who, after paying twopence for a bowl of soup, were allowed to spread their elbows on the table and go to sleep. They could not even lie down. No one knows how long ago the place originated, but, it has been kept by succeeding generations of Fradins. The war, however, has given it the "coup de grace" and it now is on the point of closing its doors. The mobilization swept away three-fourths of the habitants, and the older men that were left have been gradually eliminated by death and the almshouses. The last survivor, known as Father Julien, has slept there every night for seventeen years with his head on the corner of the table nearest to the kitchen-stove, and it is to be feared that the enforced change of habits will affect his health. At his age, one can not begin to sleep in a bed.

The various academies of the Institute of France are fixing the dates of the admission of new members. When the "immortals" come to present themselves before their fellows, they will find that they have a heavy tailor's bill to pay. The high cost of living has particularly affected the cost of clothes, and, today, there may be some

unhappy Academician who is bewailing his successful candidature or at least wishing that he had won his fauteuil either earlier or later. The gaily embroidered coat will cost him $150, and the rest of his garments in proportion. As not even an "immortal" can appear without trousers, he will have to find $25 more for that orthodox garment. Even the ornamental sword, which is *de rigueur* on these occasions, has gone up to $20. Unless the unhappy happy chap can borrow the costume of a confirmed colleague, the prospect before the poor, even though illustrious, author is anything but pleasant, since he can not don even the feathered hat (which now runs to $30) on ordinary occasions, and he is doomed to this extravagant expenditure for attire that will usually hang unseen and unworn in his wardrobe.

British and American soldiers in Paris have a club where they are welcomed on an equal footing. This is the Palais de Glace, once the popular skating-rink in the Champs Elysées, which the American Y. M. C. A. have turned into a club for the use of soldiers of the two nations. Besides its pleasant club-rooms, it has a theater where cinema-shows are given every afternoon and evening, and a vaudeville entertainment on Wednesday and Friday evenings, while Tuesday night is reserved for boxing. The Palais de Glace will now have its own orchestra, composed of five professional musicians, sergeants in the United States Quartermaster's Corps now in Paris, who will play regularly, at this club, for the soldiers of the Allied armies. Tonight at 8:15, Dr. Frank Bergen Kelley, of New York, will give an illustrated lecture at the Palais de Glace, on "Democracy versus Kaiserism." Doctor Kelley will discuss the difference between the governments of France, England, and the United States and that of Germany.

All fighting and no play undoubtedly makes the buck private a dull doughboy, which fact has constituted one of the great problems of the war. This problem has been met; but, with the arrival of peace, a far-greater difficulty must be faced. It will be months after the armistice before peace is concluded. It will take many, many more months to get the army home. No fighting and much leisure will leave the doughboy in a far-sorrier plight than before. There will have to be a great deal of play of the right kind, if he is to be tided over the tedium of those months.

The great danger is, that the men will be forgotten in the less picturesque days when the war is formally over. The thrill of war will be past. The doughboys will be homesick and chafing under the restraint that keeps them in a foreign land. There is a very old proverb that foretells perfectly what is going to happen, unless something is found for them to do.

The entertainment-department of the Y. M. C. A. is already starting out to find this remedy, by getting ready to enlarge its program of amusement for American soldiers. At the present time, 65 professional companies are putting on shows for the A. E. F. in France, under the auspices of the Y. M. C. A. At least 100 professional shows are being presented every day, and on an average 700 amateur performances a week are being put on by the men themselves, trained by Y. M. C. A. coaches. This number will need to be doubled, or more, after the armistice is signed. There never was a time when the American soldier needed entertainment as much as he is going to need it in the months just after peace is declared.

Walter H. Johnson, of the entertainment-department of the Y. M. C. A. said recently: "The need and the opportunity for reaching the men will both be infinitely greater than they have been during the war. The men will be stationed in rest-camps and leave-areas, instead of in combat-divisions, as they have been up to now. Time will hang heavy upon their hands, and the situation must be relieved in every possible way.

"It can not be too strongly impressed upon the dramatic companies back home that the entertainment-war is not over when the fighting ends, but, only just beginning. Their real chance to be of service to the American soldiers will be greater in the months after the peace-treaty is signed than it has ever been before. We need all the entertainers that we can get, the best ones that the United States has to offer. The doughboy is going to be critical and hard to amuse during the months while he is waiting to be sent home.

"We hope to recruit a number of entertainment-units from the army itself when the war is over. A number of well-known entertainers of the United States are now fighting in the trenches, and we have asked the army to assign them to us as soon as

thy no longer are needed as fighters. The 'Khaki Trio,' one of the most popular entertainment-units, was assigned to us in this way by the army.

"We shall make an effort to double the number of coaches that are to train the doughboys to put on entertainments of their own. Nothing pleases the American soldier more than a performance in which he is an actor, and the average buck privates display astonishing ability in their amateur theatricals. Already an entire department of the Y. M. C. A. gives up all its time to finding and making costumes for the A. E. F. companies, and the number of these costumers will have to be increased when the war is over. When the soldiers are stationed for a considerable time in one place, as is seldom the case in the combat-areas, there will be a much greater opportunity to train them for these amateur plays of theirs."

The army has prepared a list of thirty places for new leave-areas, and has asked the Y. M. C. A. to cooperate in getting them ready for the men. Adequate entertainment will be provided in these various areas as soon as they are ready for use.

B. Sherwood-Dunn.

Paris, France.

INDUSTRIAL MEDICINE

In line with the present endeavors on the part of various enthusiasts that attempt to bring on the political, social, and economic millenium by legislative measures —but, far superior to these visionary attempts, because practical and individual— is the custom of various large industrial corporations to attend to the health of their employees through their own initiative and to secure the physical efficiency of their workmen through the services of a staff of physicians and surgeons employed by them at reasonable remuneration, for the purpose of keeping the workmen well and of restoring them to health in case of illness as soon as may be.

In accordance with this policy, we are informed that Armour and Company have made plans for the renewal of the medical examination of 12,900 men and women working in the Chicago plant of that concern. This means of safeguarding the health and safety of the Armour workers is not new, but, was discontinued during the war because of the urgency of orders placed to keep the fighting forces supplied with food and the enormous amount of extra labor needed.

Dr. Volney S. Cheney, chief surgeon, and his corps of assistants will have charge of the huge task. Every worker in the plant will be examined free of charge. The value of visiting a doctor at least once a year for a medical examination, to discover any defects in one's health, and which may be easily corrected by treatment, is generally recognized by persons of means, who visit their doctors regularly, so that they may know in just what state of health they are.

Armour and Company, through their welfare bureau and their staff of doctors, offer this service free to their many workers, and, in case defects that may have interfered with a man's work are brought to light, the man or woman will be transferred to some other task in the plant that, in the opinion of the medical men, they are better able to perform.

A REAL MOSQUITOFUGE

From a recent issue of *The Chicago Tribune*, we clipped the following article about what the sports-editor personally guarantees to be an actual and serviceable mosquitofuge. Perhaps some of our fishing and hunting colleagues will tell us how they found it to work out in practice.

"The north woods would be 'God's country,' indeed, if it were not for the pesky skeeters—durn 'em. Like most anglers, we have tried everything that we ever heard of in the way of fly- and mosquito-dopes and -lotions, some of which smelled worse than something rotten in Denmark, but, with only indifferent results.

"Now, after many years of fruitless search, we have found something that we know is the real dope. Here is the formula:

Equal parts of oil of cedar, oil of tar, oil of citronella, and olive-oil.

"If anyone were to hand us this formula, we should say, offhand, that it is so much like all the others that we have heard about that it wouldn't be worth trying; but, as a discourager of mosquitoes, it is a 'darb'—mosquitoes simply don't like it. Take our word for it and take some along when you go north. One of the worth-while virtues of this mixture is, that it has body enough to stay put. Two applications a day will do. [Will someone please tell the editor what is a "darb,"

and why? What's the "genealogy" of the word?]

"The only objection to it is, that it stains the skin a deep nut-brown (accent on the nut); still, it is quickly removed with pumice soap—we used the kind that comes in a can, and it works fine.

"We have been unable to learn where, when, and by whom this dope was originated, but, if the fellow that got it up ever applies for a Carnegie medal, he will have our unqualified support."

On a later occasion, the same writer says that, in his opinion, the merit of this mosquitofuge lies in the fact that it stays put. As most anglers know, citronella is disliked by mosquitos, but it doesn't last. Mixed with heavy oils, as in this formula, it does stay on, and two applications a day will do the trick.

"A brother of the angler who gave this formula a trial is as enthusiastic about it as we are and he suggests that a good coating of cold cream on the face and hands before applying the dope makes it easier to get off.

"Of course, all fishermen know that a good growth of stubble on the face helps hold mosquito dope—in fact, in some camps any man who shaves more than once a week is looked upon as too darned fastidious to associate with common folks!"

ANENT THE CAUSE OF "INFECTIOUS DISEASES"

It is a very rare occurrence for me to express ideas in regard to disease conditions, their cause or origin, and so forth, but Dr. Croft's article in the April number of Clinical Medicine has surely given our "bug hunters" some food for thought.

My personal opinion in regard to influenza has always been that it was due to atmospheric conditions, and not to a specific microbe or bacteria. Several members of an isolated family will come down with influenza almost at the same hour—not having been exposed by contact with anyone. Perhaps one or two members of the same family will nurse and care for the rest of them, and not contract the disease. Why do they not take it? My answer is this: It is because of the normal alkalinity of their blood, which is the true prophylactic of all disease.

That very familiar disease called tonsillitis is a similar disease, and is always caused by gas irritation—the gases emanating from the stomach in such an acrid state as to cause irritation of the fauces, the resulting irritation making possible the bacterial invasion.

Diphtheria is caused the same way—either from gases from the stomach, or gases escaping from a poorly constructed sewer—the gases being of the same nature in either case. I do not believe diphtheria contagious, neither do I believe influenza contagious. Antitoxin antidotes diphtheria by raising the alkalinity of the blood, but it is necessary for the patient to receive large doses early in the disease.

I notice this in the treatment of influenza, namely, that the physician that put his patients to bed early, applied heat, absolutely prohibited all food for three days or longer, if conditions justified, gave warm alkaline drinks, and no depressant drugs, had fewer complications, and practically no deaths.

I do not attribute this treatment to luck, but to practical common sense. I make this statement from an unprejudiced standpoint, because I have not been in practice during this epidemic of influenza, but as medical director of a health and accident company have had an opportunity of reviewing hundreds of cases of this disease from physicians of eight states. The death rate in some localities has been a real calamity.

F. F. Winsell.

Minneapolis, Minn.

[The opinion that the normal alkalinity of the blood is an efficient prophylactic of itself—we might add, of bacterial disease—has a familiar ring, it having been expressed first by the late Professor von Behring, just about thirty years ago. If you are familiar with the tuberculosis literature of from fifteen to twenty years ago, you may remember that, in this country, Dr. Karl von Ruck, of Asheville, North Carolina, insisted quite emphatically upon the importance of a normal alkalinity of the blood for the immunity against tuberculosis. Indeed, for years, this alkalinity has been determined periodically and as a routine measure in all patients of the Winyah Sanatorium. In one of the biennial reports (1907) from that institution, the subject is dealt with somewhat in detail.

While we freely admit your claim that the blood alkalinity stands in relation to

antibacterial immunity, we can not go to the same length as you do, being convinced that it will not do to undervalue or underestimate the possibilities for evil inherent in the pathogenic bacteria themselves. It must be admitted that too much has been attributed to this factor. Yet, it would not be wise to neglect it or to consider it as subordinate.—Ed.]

STUDYING INFLUENZA

At the recent meeting of the American Medical Association, the section on Industrial Medicine and other sections passed resolutions asking for the appropriation of $1,500,000 by the government, to be used for the purpose of carrying on an investigation on influenza, its cause, prevention, and treatment.

In referring to this resolution, Dr. Otto P. Geier, the Secretary of the section mentioned, enclosed a questionnaire, and answers containing the information asked for by a member of congress. This information undoubtedly will be of interest to the readers of Clinical Medicine, so, it is appended herewith:

Q. Will the epidemic again appear?

A. The epidemic will recur, for, medical history shows that we have had a series of influenza- or grip-epidemics, the last one of which proved to be of the most virulent type. There immediately occur to me those of 1867 and of 1889 to 1895. The Metropolitan Life Insurance Company has issued some very definite figures on this latter epidemic, covering millions of policy-holders, which show an average increased mortality, for the five years following, of 40 percent above the normal death rate. Any estimate of economic loss should include the 40 percent increased mortality that, in all likelihood, will similarly occur in the next four or five years.

Q. Is its origin fairly well known? If not, the likelihood of definite information by research.

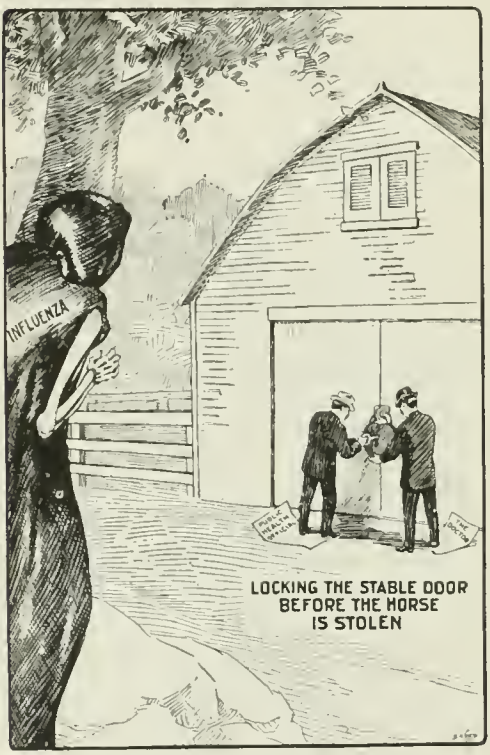
A. Much private research has been carried on, but, its origin and spread still is undetermined. This must be collected and further stimulated, for, only through careful research, is there any likelihood of definite information.

Q. What success in the discovery of an antitoxin?

A. The possibility of the discovery of a real antitoxin for influenza is wholly dependent upon the discovery of the actual germ causing the disease.

Q. The possibility of collecting necessary information and its distribution among the people, to reduce the dangers of its spread and increase the chances of recovery?

A. I need but cite two of many similar researches, successfully undertaken, that have practically eliminated the dangers of the spread of disease; to wit, malaria and typhoid fever. Except for our knowledge about typhoid fever, the armies of Europe



Good Work! Let's Do It.

would have been decimated by this disease alone.

Q. The generally bad after-effects of the disease?

A. The generally bad after-effects of the disease are, unfortunately, too well known by the profession. The Red Cross Chapter in Cincinnati is expending perhaps $200,000 in an effort to examine physically every person that has suffered from influenza; to discover the pathological conditions—bad heart, bad kidneys, bad lungs—resulting from this epidemic,

and relieving the poverty and chronic invalidism that accompanies it.

Q. The economic loss to the country through the epidemic?

A. The economic loss can hardly be estimated. The 500,000 deaths alone represent an economic loss of $2,500,000,000. Economists all agree about the fact that $5,000 is the minimum social and economic value of a human life. It is safe to say that 10,000,000 people had the disease and that they lost 150,000,000 working days. At a minimum combined loss of wage and production, of $7.00 per day, there has been another $1,000,000,000 of economic loss to the country. In other words, conservatively speaking, we had between $3,000,000,000 and $4,000,000,000 loss in this last epidemic.

A PRACTICAL TALK ABOUT SORE THROAT AND DIPHTHERIA

"Sore throat" is not a scientific appellation, but, that is what the laity call it, and it is to discuss various useful treatments for some of the forms of this common illness that I would call attention.

I am wondering whether you are aware of the good results that often can be obtained, in the way of treatment, by the administration of granulated sugar. To illustrate, let me give two cases that recently came under my care.

An anxious mother telephoned me late one stormy night: "My baby boy (12 months old) is very croupy. He has been this way for several days and nights and is getting worse, in spite of all that I am doing. I fear membranous croup. I will not ask you to come out on such a night, but, my husband will call at your office for medicine when he comes home."

I told her to keep cold wet cloths on his neck. She said that she had been doing that. I also told her to feed the child all the dry granulated sugar that he would eat.

It was two hours before the husband arrived. I gave him iodized calcium, with directions to give 2½ grains of it every hour till relieved.

I saw the baby the next day. The mother said that the sugar was just the right medicine, for, the child went to sleep before the father got home, and no more medicine was needed.

A few days ago, I was called to see a middle-aged woman who had lost her voice —aphonia. I told her to fill her mouth full of granulated sugar and hold it till the saliva moistened it so that she could swallow it. This she did and her voice returned at once. This is worth knowing, even though it may not work in every instance—no remedy does. Sugar has this in its favor: It nearly always is at hand and is not difficult to take.

Therapeutically, granulated sugar is a hygrophile substance, reducing congestion through osmosis, that is, by dehydrating the tissues. It is an antiseptic, for, it is a germicide. It is a proper food, for, it is nearly pure carbon, is easily assimilated, rapidly converted into heat, and builds up muscular strength. Nearly all cough-syrups are largely sugar.

Quinsy sore-throat I can very often abort by giving one tablet-triturate of 1/100 grain of potassium bichromate. Let patient dissolve one tablet in the mouth every half hour. This soon relieves. Oftentimes a postpharyngeal abscess can be prevented, in this manner, as also pus formation in and about the tonsils and pharynx.

For sore throat in which the cervical glands are involved, most excellent results follow the administration of the following prescription:

Specific medicine of phytolacca decandra	dr. 1
Water	ozs. 6

Label: Shake well before taking.

Dose: One teaspoonful every half hour till relieved.

As to gargles, the following has been my standby all the years of my practice.

Potassium chlorate	dr. 1
Hot water	ozs. 16
Carbolic acid	drs. 2

Label. Shake well before using.

Gargle: Use freely every half hour. Do not swallow this gargle.

Most of the sore throats yield very kindly to this gargle; the patient saying, after using it, "That makes me feel better."

Speaking of this gargle, carries me back to the dreadful epidemic of diphtheria that devastated the population of Earlton, Ohio, in 1858-59.

My father, the late Dr. C. H. Cope, of Colerain, Ohio, used this gargle in connection with the other treatment below, in his very successful treatment of diphtheria. As soon as a diphtheritic patch was noticed in the throat, it was touched with

a probang dipped in pure beechwood creosote. When the parts turned white, the application was considered sufficient. The foregoing gargle was used every fifteen to thirty minutes. He prescribed calomel, 5 to 10 grains, followed by castor-oil or epsom salts enough to purge. Whisky, *ad libitum*. After this treatment was instituted, he had no more deaths.

For now thirty years, I have substituted carbolic acid for the creosote and 1/60-grain doses of strychnine, given every four hours, for the whisky, with equally good results.

I am telling you this in case you get into diphtheria-trouble and can not obtain antitoxin. You may use alcohol if you fear an excess of the carbolic acid.

C. S. Cope.

Detroit, Mich

ABOUT SURGICAL AND IDIOPATHIC ERYSIPELAS

I was extremely sorry to read, recently, of the death of Dr. C. S. Pixley, who was interested with me in the active-principle propaganda during the early eighties. Doctor Pixley took charge of the eastern business, while I attended to the Western end, and, together, we two founded the journal that we started under the name of The Alkaloidal Clinic and which later was rechristened Clinical Medicine (July issue, p. 512.)

I note particularly in the issue of Clinical Medicine two articles on erysipelas, both relating to its treatment, but, neither of the articles differentiates between surgical and idiopathic erysipelas, when, indeed, there is a very wide difference in the treatment of the two (see pages 461 and 499.)

I am particularly interested in the article recommending magnesium sulphate in erysipelas. I am interested because I have been using it, both locally and constitutionally, in idiopathic erysipelas since 1866, and always with excellent result, while I have seen horrible cases of scars resulting from the use of silver nitrate, tincture of iodine, and other escharotic substances.

But little effort seems to have been made to differentiate between these two varities of the disease, treating all as though the cause were traumatic, and the knife has not infrequently been used in idiopathic erysipelas, because of great swelling, and thus inducing suppuration that otherwise would not have occurred.

In the article, "The Local Treatment of Erysipelas," it says: "In the direct treatment of the entire infected area, numerous incisions are made into the skin, about one inch long, but, without causing much bleeding." I look upon this practice as being radically wrong in other than traumatic erysipelas, because it causes the easily managed condition to be changed into one of a serious nature.

In South Dakota, where idiopathic erysipelas was endemic in the early seventies, I saw many cases and treated many cases of them; my own with uniform success, while, in several instances, I saw the ill-effects of escharotics and the knife, both in the resulting deformity of those who survived and the burial of those who succumbed.

W. T. Thackeray.

Fowlerton, Tex.

CENTRAL SOCIETY OF PHYSICAL THERAPEUTISTS

We are informed that the Central Society of Physical Therapeutists will hold its annual convention at the Atlantic Hotel, Chicago, from September 29 to October 1, this fall. The program will provide for papers on all branches of physical therapeutics. This is certain to be a most interesting meeting, and physicians who can arrange to be in Chicago during that time will derive much benefit from attending.

DIARRHEAL DISEASES OF INFANTS

Functional diarrheas are noninflammatory, showing frequent stools, large, lumpy, acid, and of varying consistence. There is gastric irritation, and abdominal pain of a cramp-like character may precede the diarrhea. They may be caused by the nervous excitation of dentition, irritant substances in the food or by overfeeding, coupled with heat-exhaustion after a too continuous spell of hot weather, in conjunction with great humidity and air stagnation. Exposure of feet, legs, and abdomen to drafts for an unduly long period or during the night may set up an intestinal disturbance expressed in an attack of diarrhea. These attacks usually are mild and easily cured.

The first important thing to do is, to prohibit milk in any form for twenty-

four or forty-eight hours, while permitting sterile water in small quantities and at frequent intervals for the first twelve hours, then adding rice-water, barley-water, egg-albumen water, buttermilk, whey, fat-free casein in 5 percent gelatin-water, also skimmed milk, gradually returning to a full milk-diet. The idea is, to reduce fats and sugar in the daily diet.

The preliminary dose of castor-oil or calomel, 1/10 grain every hour for ten doses, followed by castor-oil in sufficient dose to clean out the entire intestinal canal, then daily doses of milk of magnesia or aromatic syrup of rhubarb will control the milder cases. If stools still are frequent, bismuth subnitrate, bismuth salicylate, the phenolsulphonates (sulphocarbolates), in mucilage of acacia will check them. Fresh air, cool room, frequent bathing, irrigation with saline solution, and especially REST are paramount remedies.

Acute gastrointestinal catarrh is expressed in a diarrhea with frequent thin green malodorous stools containing much mucus; besides high temperature, rapid weak pulse of exhaustion, and pain interfering with rest and sleep. There usually is vomiting of a persistent character. This, with the diarrhea, soon produces the facies of loss of body-fluids, sunken eyes, and pinched features; great thirst is manifested, but, any liquid swallowed persistently is vomited. The child is restless and shows nervous exhaustion; convulsions may ensue.

An attack of this kind is truly an intestinal toxicosis, caused by the rapid absorption of toxins from the gut, produced by pathogenic bacteria. Again the important thing is, to clean out the patient as thoroughly as possible, by means of active purgatives, such as castor-oil or calomel, and with intestinal irrigations with saline solution under low pressure. Gastric lavage is indicated in persistent vomiting, following which bismuth subnitrate or carbonate in 10-grain doses may be given, to sedate the mucous membrane. A combination of bismuth salicylate, bismuth carbonate, copper sulphocarbolate, mucilage of acacia, and cinnamon-water proves very effective in these cases.

Where there is much mucus in the stools and a little blood daily, magnesium sulphate, combined with copper sulphocarbolate and mucilage of acacia and chloroform-water and glycerine to sweeten, will prove effective, if given persistently. Where there is much pain and distress, with frequent mucous stools, castor-oil in small doses of paregoric will be found serviceable.

For the high temperature, frequent bathing or cool packs are indicated. In conjunction, aconitine hydrobromide, 1/800 grain, gelseminine hydrobromide, 1/250 grain, of each one granule for each year of the child's age in twenty-four teaspoonfuls of water and given in 1-dram doses, will quiet restlessness, and reduce fever, lessen nervous excitation, as shown in jerking of muscles, rolling of head, and stiffness of neck-muscles. Irrigations of the colon with cool saline solutions are useful.

Atropine, in very small doses, is indicated in collapse, to check too great drain of liquids, in exhaustive sweating, as a stimulant. Camphor is useful hypodermically. Strychnine, hypodermically, in doses of 1/400 to 1/100 grain, is useful in great prostration, repeating every three hours.

When the temperature runs high, my main reliance is upon hydrotherapy. The cool sponge-bath, cool pack, and cool enemas or irrigations with saline solution are employed for this purpose, care being taken not to induce depression. Stimulants may be given either before the cold applications are made or immediately after. In emergencies brucine for infants and children in 1/64-grain doses may be given every two hours. Usually, the dose should be smaller, say, 1/134 grain. One granule with one teaspoonful of liquid peptonoids preceding the bath or sponging will be sufficient to ward off symptons of depression.

In exhaustion or great prostration, hypodermoclysis may be resorted to, using 50 mils, twice daily, of the saline solution; or continuous proctoclysis will give good results.

The dietary consists of articles advocated under functional troubles. Milk is absolutely forbidden, fats and sugars are restricted in the early stages, buttermilk, liquid cultures of bacillus bulgaricus in sterile water, whey, and lime-water may be ordered after the acute stage has passed.

The little patient must have rest, must be kept cool, the abdomen protected against sudden atmospheric changes by means of a soft flannel band, the buttocks kept clean, to prevent chafing, and plenty of fresh air and protection against flies ensured.

In *acute ileocolitis,* the symptoms of inflammation are added to those met with in

the condition just described. Vomiting occurs and there are frequent stools containing blood and quantities of mucus, very offensive, and connected with great tenesmus and straining. Recovery is slow, owing to the ulcerative involvement of the intestinal mucus membrane. Careful and patient treatment, both medicinal and dietetic, over a long period, is called for to restore these victims to health.

Some of these cases are difficult to differentiate from intussusception; however, in the latter, there is no high temperature; there are present vomiting and colicky pains, with the passage of blood-stained mucus, and the presence of a tumor-like mass somewhere in the abdomen can be made out.

The treatment is similar to that of the preceding; using rectal irrigations with hot saline solution, to relieve straining, or laudanum and starch, using 1 to 3 drops in 2 ounces of thin starch-water, repeating as needed to control tenesmus, but, taking care not to give enough to check the evacuations too rapidly. Later on, silver-nitrate solution, 1/3000, may be used to heal ulcerations or to control the discharges of blood. Copper sulphocarbolate or copper arsenite, in small dosage, will secure great benefit in those cases in which there are pain and tenesmus and discharges of blood. Emetine hydrochloride, 1/134 grain, every two hours, internally, or hypodermically, 1/4 to 1/2 mil of the standard solution, daily, also is beneficial.

The use of the ancient chalk-mixtures is not required, and, indeed, as a rule proves harmful. Opium indiscriminately given is bad, and astringents are not necessary until the intestine is thoroughly cleansed by means of calomel and castor-oil. The latter may be made palatable as an emulsion with acacia and flavored with some one of the aromatic carminatives. Calomel should be given in 1/10-grain doses until the bowel-movements are of better color and odor. It may take 8, 10, or 20 doses. Sodium bicarbonate may be given when there is acidosis or to alkalinize the stools. Magnesium carbonate in suspension, or, milk of magnesia is better. Atropine, brucine, aromatic spirit of ammonia, camphor, strychnine, these are sufficient for collapse, exhaustion and prostration in lieu of alcohol or brandy.

Screen the baby! Flies infect and carry infection. Prevention is easier than cure. During the hot months, feed light and easily digested foods and check overfeeding.

R. J. Smith.

Pocatello, Ida.

[This excellent letter unfortunately, came too late for publication in our August issue. However, it is not too late even yet, to be studied with benefit; and, it may carry just the advice needed to save some baby or other ill with summer diarrhea.—Ed.]

GOOD OPENING IN MINNESOTA

We are in need of a couple of physicians here. This is the county seat, a booming town of 5,000, and a wealthy large territory, and only three doctors, two of whom are getting old. A physician who can do surgery would do extra fine here. Just come and go to work. Two of our physicians went to the army and will not return. Simply state among your locals, they are in need of a couple of physicians at Blue Earth, Minn. This will do a favor.

X. Y. Z.

FRENCH MEDICINE

I am very glad you are going to publish a series of articles from prominent French writers. I am happy, also, that you are so appreciative of the great medical and surgical work that they have done and always are doing. It is none too soon for the present generation fully to recognize it and to get away from the overvalued work of the Germans. As you know, until the late world-war, we have believed that the Germans were discoverers, and, not, followers. We have also believed that much they gave us was their own, and, not, taken, frequently without proper recognition, from the French.

Apart from these statements, I would add that, the sooner we give up the idea of too great localization of disease and overmuch local treatment in disease (which largely is owing to German thought and influence), and fairly estimate once again constitutional influence as to its effects upon the human economy, the wiser and more judicious will be our treatment. The judgement with regard to that influence we owe, in great part, to French medicine.

As a graduate of the French medical school and as a former interne of Paris hospitals and now a corresponding mem-

ber of the medical society of the French hospitals, I can not refrain from sending you the foregoing brief "God-speed" in your present doing.

BEVERLEY ROBINSON.
Westport, on Lake Champlain, N. Y.

[Thank you, Doctor Robinson, we are glad indeed to have your approval. While agreeing without qualification with you, we, yet, would point out that the importance of the constitutional factor, of late, has received more attention across the Rhine. Witness the books of Benedict and of Martius, for instance.—ED.]

AS TO THE HEREDITY OF ALCOHOLISM

I have read with much interest the article by Charles B. Towns (July, p. 486), captioned, "Who Is Responsible for Drug-Addiction," and wish to offer a few criticisms, especially as I am personally interested in cases of this nature, and, while not having nearly the number of addicts to drugs or alcohol under my treatment that Mr. Towns has had, nevertheless, I have had very encouraging results in the treatment of some exceedingly obstinate cases.

Mr. Towns denies that drunkeness is hereditary, but, does admit that a drunkard may transmit an unstable nervous system to his offspring, and he further on states "that it is his own lack of nervous stability, and, not, the skeleton hand of some dead and gone ancestor that points him to the road of alcoholism or narcotic addiction."

Now, if alcoholism leads to an unstable nervous system in the offspring, and an unstable nervous system is the forerunner and usual cause of alcoholism or drug-addiction, what matters it whether the alcoholism or other drug-addiction is directly hereditary or not, if both father and child are excessive drinkers? Really, we are but quibbling and wasting time. We know that the children of drunkards are, as a rule, mentally, physically, and morally below par, that they are predisposed to epilepsy and other psychoses, that they are weak-willed and readily become criminals or are mere mental defectives, and that they more readily become alcoholics or drug-addicts than do the children of nervously more stable parents. Consequently, it is equivalent to a hereditary alcoholic craving, as many, without knowing why, drink to excess the first time they ever touch liquor, while a normal person would stop at the first or second drink.

Furthermore, Mr. Towns goes on to assert that there is no such thing as the "disease of alcohol." He also says: "The alcoholic is a sick man; however, he is sick because of the alcohol used. He is not an alcoholic because of an inherent psychosis that impels him to the use of alcohol." Again, I must differ with Mr. Towns, and I speak from sufficient experience in such cases to know whereof I speak.

Mr. Towns refers to the chronic alcoholics. How about the periodical drinkers? How is it that they can keep away from liquor for one, two or three months at a time, and then suddenly give way and drink to excess, the spree lasting from one day to a week, after which they again are able to abstain for a length of time? I had one particularly marked case of this sort under my care, a fuller description of which will soon be published in *The Medical Record*. This patient was placed by me under a course of treatment, one year ago, and apparently cured, after two unsuccessful attempts at Mr. Towns' Sanatorium. From her own account, the first drink that this woman took lighted uncontrollable desire in her and she drank to excess the first time that she had ever tasted liquor. Since that time, she had become a periodical drunkard, going on pronounced sprees at intervals of from one to three months. These debauches always were preceded by a marked feeling of depression.

Mr. Towns to the contrary, notwithstanding, I must insist that at least the periodical drinkers, and most probably also the chronic ones, and the majority of drug-addicts are such because of a definite psychosis attributable to defective heredity. In the case of periodical drinkers, it is a psychosis similar to epilepsy, its periodicity and its preceding aura of mental depression bearing this out.

Furthermore, when Mr. Towns declares: "If a man is a drunkard or a habitual user of narcotics, he is one because he wants to be," he is unfair to thousands of these unfortunates who had acquired these habits during a temporary period of illness or mental depression, to which they were less resistant than are normal people, owing to a preexisting defective heredity; and,

later when the temporary illness has disappeared and they have acquired an insight into their true condition, they are truly anxious to reform and, yet, can not.

LUCIUS F. HERZ.

New York, N. Y.

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We must confess that Mr. Town's assertion, that a man "is a drunkard or a drug-addict because he wants to be," struck us as rather brutal, and we are glad to see Doctor Herz taking position against this view. As to the heredity of alcoholism, possibly too much has been blamed upon it. However, the difference and fine distinction drawn by Mr. Towns, in his article, is, as pointed out by Doctor Herz, almost exactly the difference between tweedledum and tweedledee. Practically, he leaves us exactly where we were before. Namely, the possession of an alcoholic father or mother is a bad asset for the children.—ED.

A CRITICISM OF DOCTOR DAWSON'S THEORY OF "THE CAUSATION OF SEX"

It would seem to require but a very limited exercise of reasoning-power to discredit wholly the proposition of Doctor Dawson, that the sex-economy of the female is, in itself, of a bisexual nature, and that female ova originate only in the left ovary and male ova only in the right ovary.[1]

His theory is next to absolutely impossible, even if viewed solely from a mathematical standpoint. Let us elucidate: A normal female (genus homo) is possessed of two ovaries. Thirteen times a year, an ovum is discharged from one or the other ovary, and thus, in the course of her thirty years of sex-life (say, from 17 to 47), a total of 390 ova (barring periodical pregnancies) pass from the ovaries. Let us assume that 6 pregnancies occur and mature in this model case. This means, the interruption of the passage of about 58 ova, all told. Therefore, her actual discharge of ova will be approximately 332, which are derived about equally from each ovary.

During the thirty years, we may estimate that 3,120 copulations occur. Therefore, Doctor Dawson would have us believe, in the case of a mother who has produced 6 daughters only, that out of 166 ova discharging from the right ovary and out of 3,120 copulations (more or less—and all performed at random and under blind physical impulse) there never was once an opportunity for a single ovum from the right ovary to become fertilized and thus to result in a male.

Merely to state this mathematical disproportion of probabilities, which his hypothesis sets up, is enough to dismiss the latter as wholly untenable.

Neither will it be possible to urge that pathological conditions involved in the loss of one ovary can result in the suppression of one of the two sexes when on every hand can be pointed out mothers of great vigor and perfect health whose only indisposition through an active lifetime was upon the occasion of confinement and, yet, among whom we have those persistently giving birth, in some cases, to boys only and, in others to none but girls.

I may be in error in this particular regard, but, it certainly seems to me that Doctor Dawson has strongly presumed upon the phenomenon of bisexuality of the species, as a whole, to explain away the bilateral development of the sex-organs.

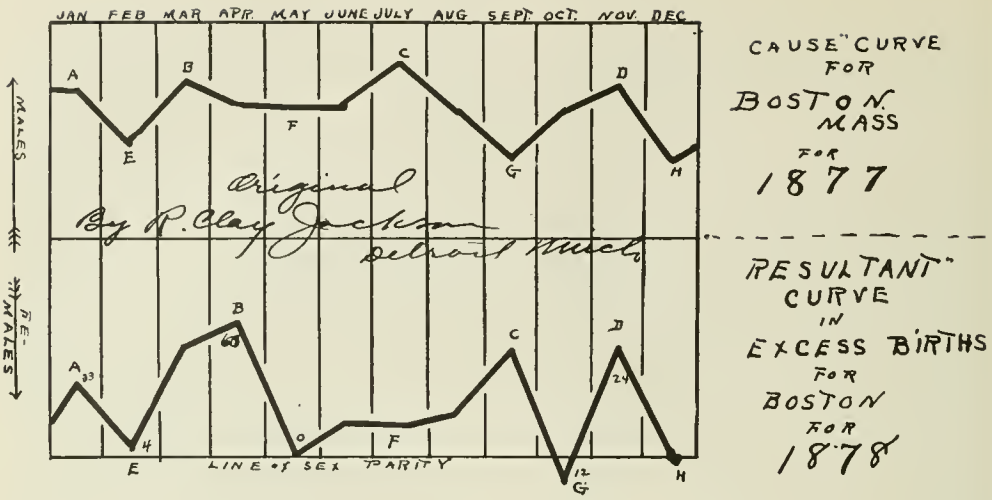
There is a fact, adequately attested, as Prof. Thomas Hunt Morgan tells us in "Heredity and Sex," which can be used to great advantage in the further dissection of Doctor Dawson's theory; namely: that, if by any means, the female frog be compelled to retain her eggs in the uterus for two or three days beyond the normal time for their deposition, the issue will be 100 percent males.

Since also in the frog the ova issue in approximately equal numbers from each ovary, and since also, under normal conditions, sex in frogs issues about equally distributed, then the fact cited by Professor Morgan, in the light of Doctor Dawson's theory, will force us to conclude that the female frog overheard in advance the contemplated experiment upon her person and that, for some unknown reason, she deliberately suspended the functioning of her left ovary.

Since Doctor Dawson's proposition is only theory and Professor Morgan's citation is fact, the absurdity of the foregoing conclusion causes a complete crumbling of the theory—favoring the fact.

Thus we know from experience, in the case of the frog, that, in all normal and nonmanipulated cases, the eggs do descend

[1] See book review, this journal, July, 1918, page 558.



from the ovaries, capable of becoming both male and female, and we, therefore, are compelled to admit that, in the case cited by Professor Morgan, the ova descended from both ovaries with male and female potentialty about equal. The conclusion is inescapable, that, in the case of the frog, sex-distinction did not arise in the ovaries, but, was gradually thrust upon the ova as a result of or concurrent with the change of environment from ovary to uterus.

Perhaps, after all, as strange as any other fact, is the contention by Professor Morgan himself, despite his citation in regard to the frog "that it is futile to seek for cause in environment."

As for my personal entrance into the discussion, it is impelled by the results of more than three years of practical researches among typical families and the recording and digest of nearly 400 cases. And, as a result, I can freely state, and am amply prepared to defend the proposition, that the operation of the prime factor in the determination of sex depends upon environment, that the mother is not, by any stretch of the imagination, a monopolist of sex-determining power, and, that each sex is possessed of a separate factor of monosexuality—the mother conferring femaleness and the father conferring maleness, as the case may be.

I have succeeded in plotting "cause" and birth-curves for Boston for a total of eleven years—seven years, back in the '70s, and 4 years since 1910; and for a total period of eleven years and one month in the birth-curve, the synchronism tallies to 95.8 percent and corrects its own "lag" and "acceleration" in December and January of every year. This makes the reaction between cause and sex-differentiation average a 12-month period. The fluctuations of cause throughout one year governing the fluctuations in sex proportions during the following year. I have also obtained shorter curves for several other localities, and, from all I have been able to ascertain, mine are the first parallels that have ever been struck.

This birth-curve is not a sex-ratio curve, exactly—it is actually an excess birth-curve. For example, in April of 1878, there were 441 males born in Boston and 381 females. A difference of 60, as shown at "B." In October, occurred an excess of 12 females at "G."

R. Clay Jackson.

Detroit, Mich.

"THE ANTIVIVISECTIONISTS"

I do not agree with the sentiment expressed in your article on antivivisectionists (July, p. 463), and will send you quotations of eminent men in the profession that express my ideas. I am an antivivisectionist out and out.

Our Doctor Crile I consider one of the most inhuman, cold-blooded devils that ever graced the profession. He came into prominence through his bloodthirsty, egotistical craving for notoriety. He has killed more patients by his daredevil cruelty than he ever saved.

I have seen some of the most horrible, coldblooded, useless vivisection-demonstrating work done in Chicago and New

York that has ever been done. Have seen vivisection work done in New York and Chicago, and at Lakeside Hospital, Chicago, that made my blood run cold, and that I would have enjoyed to watch the operators suffer. Such men should not be permitted to do this work in any Christian civilized community. Talk about cruelties of German warfare! It is matched in medical colleges by Americans, and has been, every year, for years; answering no purpose except the amusement of the operators, to show their egotistical vanity before a gaping set of fools looking on.

F. H. Todd.

Cleveland, O.

[Of course, it is to be expected that among the more than one hundred and fifty thousand physicians in the United States there must be a goodly number that do not agree with our editorial views. Nevertheless, we reject your personal and vicious hit at Doctor Crile as not being merited.

Doctor Crile has accomplished more in the way of saving suffering to patients than almost any other medical man has done. In working out his ideas of anociassociation, it goes without saying that experiments on animals were urgently necessary. However, in the nature of things, it simply must be taken for granted that these experiments can not have been carried out in such a way as to produce *needless* suffering in the experiment animals; for, that would have defeated the object of the experimentator.

One of the principal tasks of the physician is, to relieve suffering. We are justified in taking all legitimate means that can promote the attainment of this purpose. Even if the working out of our problem entails a certain degree of pain upon the lower animals, the use of the latter for the sake of the ulterior end is justified; not only from the utilitarian but also from the moral viewpoint. We can not accept your condemnation of Doctor Criles' work as justified, in view of the eminently pain-saving results of his investigations.

As to the other things that you condemn, such as, the "useless vivisection-demonstrating work"; that was criticized just as severely in the editorial to which you take exception. Mark you, Doctor, our position is clearly set forth. Animal experimentation is justified and to be condoned *only* when it serves to discover something that we do not know, or to improve existing methods of benefiting suffering humanity. The undertaking of animal experimentation merely for the purpose of repeating well known experiments is open to serious objection and should be forbidden.—Ed.]

DO NOT MISTAKE AN ANEURISM FOR AN ABSCESS

It is now many years, some forty of them, since, on a bright May morning, I registered in the office of a Pittsburgh, (Pa.), physician as a medical student. Ten minutes later, my new preceptor said to me: "The Pennsylvania State Medical Society is now in session in this city, in Music Hall. You had better step over there." In one-half hour I was in the hall. In the audience there were some five hundred intellectual-looking physicians and surgeons.

On the platform, already in the act of delivering the retiring-president's address, stood a tall, slender, cleancut and dignified gentleman. His name was Dr. D. Hayes Agnew, then professor of surgery in the University of Pennsylvania. His subject was, "The Diagnosis of Abscess and Aneurism."

At that time, I was unaware that there were in the world such things as either of them. However, I took notice when he said that it was not difficult to mistake them and that such a thing as opening a supposed abscess which proved to be an aneurism was not an unknown tragedy in surgery. It made a vivid impression upon my mind, and about the first thing I learned thereafter was all about abscesses and aneurisms.

Some years thereafter, I saw a professor of surgery open what he supposed to be an abscess of the left shoulder-joint, and caused by an old dislocation. It proved to be both abscess and aneurism. The surgeon turned pale, while his assistant clapped his thumb upon the subclavian artery while the artery was being tied. Not ten students among the several hundred recognized the temporarily averted tragedy. Agnew's lecture enabled me to recognize the mistake. That night, the patient died from hemorrhage.

On passing the office of a young doctor the year of my graduation, I was called

into his private room. The doctor stood there with an abscess-scalpel in his hand. He pointed to a swelling over a patient's sternum and remarked that he was about to lance an abscess. I placed my finger upon it and felt the throb. I applied my ear and heard the bruit. Pressure caused it to disappear within the throat. The doctor promptly concluded not to open an aneurism of the aorta. However, it burst three days later.

Moral: Always think of the possibility of an aneurism before opening an abscess Associate them in your mind.

V. E. LAWRENCE.

Ottawa, Kans.

THE JOLLY SURGEON

Oh, the man o' the knife leads a jolly life,
He works with a right good will;
And, housemaids' knees and appendices
Bear witness to his skill.
The adenoid and the hemorrhoid,
The subluxated sesamoid,
And a lot o' those things folks can't avoid,
Are grist to his daily mill.

On a shining tray, in bright array,
At his good right hand are seen,
All the instruments of consequence,
With hemostats between;
The snare and the loop and the gallstone scoop,
The trachea-tube for the baby's croup,
The probes for the ducts where the microbes snoop
Are all so bright and clean!

Most fortunate man of the M. D. clan,
This tribute take from me,
May your heart be light as my purse tonight,
Though that could hardly be!
When you are through, there's a harp for you,
A welcome from St. Peter, too;
But, I often wonder what you'll do
Without your snickersnee.

FRANK L. ROSE.

Jackson, Mich.

RED CROSS NOTES

While the armistice, which was signed last November, was recently followed by political peace, the Red Cross declares in its communications to the press that it knows neither armistice nor peace in its constant warfare against disease, against unhealthy living conditions, against starvation, all of which are lingering poisons injuring the body politic.

The Red Cross asks us to hold fast to the ranks who carry on in the work of restoration, to keep faith with the widows and orphans of the heroic millions that died on Europe's Calvary that we might live.

In continuing its work the Red Cross needs workers as it has never needed them before. This is evident if we consider the tremendous task before the Red Cross, which is constrained to aid in the reconstruction of the war-devastated countries, not only on the western front but, far more, in the Balkans and in the various smaller states of the former Austrian Empire.

In addition to active workers, the Red Cross needs the support of a large membership; this support to take the form of considerations in money and material—it is true—but also to give the encouragement and the moral support that are so necessary to those who, working amidst scenes of squalid destitution and devastation, are unavoidably subject to frequent periods of depression.

The Red Cross is getting ready to inaugurate a third nationwide roll call in which it desires to enroll *twenty million members.* Furthermore, there are needed, immediately, one million workers to take part in the many important activities of the Red Cross.

Let us all do what we can in furthering this important work. Let us at least join the Red Cross as members, paying as much by way of membership fee as we can afford. If we are in a position to give active service, so much the better.

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The most tragic and costly disaster that has ever faced the world is, preventable disease. In the last two or three decades, great discoveries have been made in scientific medicine, bearing directly upon the causes underlying disease, the reasons for contagion, and the methods of checking great epidemics. The study of medicine has taken on a totally new aspect. It has assumed a social significance, and therefore becomes a social instead of an individual problem.

An international health organization is necessary because we must realize that an epidemic in southern Europe is almost as great a menace to us as it is to neighboring powers. There is a vital necessity for dissemination of health propaganda abroad. Particularly is this necessary in the devastated regions where the people are unable to do it for themselves, while the govern-

ments are almost bankrupt after the crushing burdens of war. The health needs of the Balkans may, on the surface, appear to be of little concern to us in the United States, but, if an epidemic develops there, we are likely to consider it a vital matter in a very few weeks.

The countries of the European continent are sick. The idea of a healthier and, therefore, a happier people appeals to every man no matter what his nationality. We want to reduce suffering and disease. We want to save the children. It is an ideal for which each one of us is willing to strive, but, we can not accomplish the big end by working as individuals. The situation is too complex. We must labor in unison. The people of America, through their Red Cross with its organization perfected and workers mobilized, must do their share in completing the tasks that confront humanity. The appeal to be made in the fall is an appeal to make secure the peace won by the sword; to give loyal support to this new after-war work of the Red Cross; to ease the burdens of our more unfortunate associates in the struggle for freedom, and to make the world a better place to live in than it ever was before.

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The most startling announcement of the new Polish government is the recent edict of the Ministry of Public Health ordering every man in Poland to get a "billiard-ball" hair cut. "All men without exception must submit to hair cutting," says the announcement. Girls above eight years are exempt. They will still be left in possession of their tresses if there is no danger of infection.

The object of the edict is a "cleanup" campaign to stamp out the prevailing typhus epidemic, more than 100,000 cases having been reported. The campaign is scheduled to last three months but, in all small villages, the people must have their hair cut and take a bath on a single day. So, the authorities advise that the villagers begin early, suggesting six o'clock in the morning as a likely hour. It is hoped to establish public baths in every village and town and to make compulsory the regular taking of a prescribed bath. It is also said that every piece of linen bedding and all the clothes possessed by the people should be subjected to a disinfecting process.

To carry out its cleanup plans, Poland has appealed for assistance to the Allies. Poland is doing this not only for its own salvation but also in the interest of western Europe. Its health authorities point out that, if typhus is not stemmed in Poland, it will sweep on into western Europe. War has deprived Poland of most of its supplies, raw materials and machinery. For the "cleanup" she needs from outside: 100 medical specialists, 1,000 steam disinfecting machines, 160 mobile bathing plants, 800,000 pounds of crude creosol, 300 tons of soap and 200 pounds of camphor. The hair cutting job will require 6,000 pairs of clippers. In clothing, Poland needs 1,500,000 suits of underwear.

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At the Columbus military camp in New Mexico, the Red Cross Canteen served cigarettes and minor supplies to 2,000 soldiers who were called out at 2 o'clock in the morning to rout the Villistas.

As soon as conditions looked serious, a Red Cross field representative at Columbus, New Mexico, was dispatched to El Paso, Texas, by the Red Cross. As a result of his work, all canteens in New Mexico and at other points in the border territory are now prepared to give to the American forces there the same service given by the Red Cross during the troop movements on overseas service during 1917 and 1918. Additional Red Cross workers have been added to the canteen staff at Deming, New Mexico.

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Community singing is part of the life of every military hospital. Singing has been found especially helpful among the "psychopathic" patients whose minds have been affected by the war, or by wounds received in battle. Musical instruments have been provided by the Red Cross and bands and orchestras have been formed in many hospitals.

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Recently, the American Red Cross gave an entertainment with moving pictures at one of the hospitals near Vichy. A young soldier suffering from a bad case of shell shock was in the audience. For several weeks, he had not been able to speak or laugh and the doctors had given up hope of making him normal again. Suddenly, Charlie Chaplin appeared on the screen and commenced his old Chaplinesque capers. The boy burst out laughing involuntarily and since that moment he has been able to talk and laugh as of old.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Actual and the Ideal

[*Continued from August issue, page 596.*]

I HAVE traced, however imperfectly, the trend of materialistic thought in our country, touching only upon the salient features of its tendency and progress, and, by implication, have inferred that among the occult causes of skepticism today must be reckoned the negation of the ideal, in favor of that which appeals more directly to reason and outward sense. We have seen also how the spirit of agnosticism, incrusting a genial faith, as well as the credence implicitly placed in precise, palpable, though evanescent, success have greatly modified alike the aims of life and the means employed in their pursuit; for, the relations of abstract thought to a practical lapse of moral feeling are, by no means, so remote.

Yet, whatever be our misgiving with regard to the superficial bias of the period, there are indubitable signs everywhere that virtue and honor still claim the reverence of men. Among the most startling expressions of higher life, may be instanced an address given not long ago by the president of the merchants' association of one our largest cities (shopkeepers, think of it!), who, in closing, redeemed the littleness of a generation by these words:

"And, finally, if there be a hardheaded, heartless, and penurious man of business (such are plenty within the sound of my voice) who spells the conjunction "but" with two t's and deplores sentiment and enthusiasm and love of knowledge, because they do not conduce to the instantaneous acquisition of the last obtainable cent, I bluntly tell him that the world is governed by sentiment; for, what else are love and patriotism and religion?"

It is difficult to see how business could go on for a day, were so elevated a theory as this merchant's to obtain general acceptance. It is like an echo from Arcady and must have sounded apocryphal to many a bewildered hearer. It vindicated Endymion's opening verse: "The poetry of earth is never dead"; and the fact that an utterance like this, nowadays and on such an occasion, was actually allowed to stand on the record is augury of wiser years and truer lives than our morning papers are wont to announce.

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How readily do we assent to our secret admission of that which we are prone to conceal—the leaven of daily life that runs imperceptibly through and quickens all our thoughts and deeds, transfigures the uncouth places and disarms incredulity by the magic of its influence! And, we may proudly say, obscure though his days may have been, seldom passes from us a lofty character but that some eulogium somewhere bestows upon that quiet achievement the recognition it has claimed. It is in its calmer moments that the soul recovers what amid the vague unrest of strife often is veiled from its perception. Yes, herein lies a mighty obstacle to our spiritual advancement.

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What least characterizes our national life is repose. We must not rebel against a foreign criticism like this from the *London Athenæum*—a very aristocratic and absurd journal, if you like—yet, not so far wrong in many of its reproaches to us, invited by foibles which we are too vain to correct:

"The author of 'As Common Mortals' is very fond of talking, in a rather sensatious way, about "the American intention." The intention of the great republic is, to conduct its affairs on business principles, so that the women can not conscientiously read a novel in the morning and the men consider a social cause to be a deplorable waste of time."

This strange infatuation of haste, this overestimate value of what is commonly called "work" is a mortal injury to ideal progress. It is impossible not to

sympathize with the brave housekeeper who declared: "I will *not* sacrifice my peace and happiness to this miserable battle with dust. I would cultivate tidiness as a cardinal virtue; but, I see that, do what I will, some molding, some sash or cranny or inaccessible corner is sure to gather motes and ashes, so that I might, if I chose, devote myself exclusively to this weary task of cleaning and, yet, never, never find all things perfect. Even were my house immaculately ordered, there would still remain that wretched barn—and my guests might possibly discover my incompleteness in its cavernous and unkept recesses. No, let us compromise and not sink all in this appalling endeavor."

The opposite extreme might be exemplified in the case of a lady who, arriving in a pine grove, where the ground was strewn with woodland debris, wished only that she had brought a broom! This was neatness run mad—still, it was intensely practical in its way, betokening the "fine madness" chided by that London magazine.

It is melancholy, this incapacity for repose, which shortens life, makes battery-cells and -currents of corporeal tissues, and jars upon the brain surcharged with never-ceasing care. What wonder that our literature teems with astounding conundrums: "What shall we do with our girls?—and with our boys and our wives and husbands and grandmothers? What shall we do with anything, anybody, anywhere? Take me away or give me some genteel anodyne! Alas, *is* life worth living?"

Sorry introspection and blasé inquietude! Come, let us, children, forget those labors for a day. Away with dusteloths and darning-needles, away with books and logarithms and stethoscopes and microscopes! Out into this pure morning—and may every balmy breath from heaven be hellebore to your heated brains and may every heartbeat bring you fresher sensations!

We know that trifles are part and parcel of our earthly lot; we do not shrink from them nor underrate their value. We have learned that no task is mean when stimulated by the wholesome endeavor to be true; and we admit the divinity of sweeping, even as did saintly Herbert. But, oh! can we forget the spirit immortal that expands in this sweet sunshine, like the flowers at our feet? Lo, how much have we toiled to acquire a knowledge of these "lilies of the field," and, yet, we cannot analyze one delicious perfume! The thrush on yonder bough, embodiment of rapturous melody—do we not know the minutest anatomy of the frame that enshrines that delicate heart? And, yet, its song, forever new, forever captivating, wells forth in mysterious cadence, and why he sings; yes, why the music touches a responsive chord in us, fills our souls with answering madrigals, we can not know despite all the erudition found in our college-halls.

Know? Ah, there is the pith of it! Here again we confront the ideal, which, despite all metaphysical subtleties and the terrible syllogisms of Caledonian logic, is to the mind an entity, since it has to thought a palpable, perceptible existence, bearing to spiritual life the relation which form and color bear to outward sense. There is, in truth, a knowledge of feeling as well as of apprehension, and it is to this sphere—the world of sentiment, not sense—that we must turn to discover the significance of moral life and recognize the solemn veracity of Tennyson's reflection, "Knowledge comes, but, wisdom lingers"; or, as Thoreau oracularly announced "Wisdom does not inspect, but, beholds."

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In imagination, as by Ruskin, distinguished from fancy, do we find the medicine whereby all earthly objects become transfused with grace and through which the ideal assumes a loveliness and purity that only the devoutest receptivity can understand and only a mind attuned to the highest vibrations can thoroughly enjoy. To all of us, however, is granted some degree of this divine gift of spiritual insight. "Whoso seeketh wisdom,' says Solomon, "shall have no great travail; for, he shall find her sitting at the door." (*"Apoc."*)

It is the glory and privilege of the ideal to dwell within the humblest and to render more than royal the most obscure conditions of life. Blind Homer and blind Milton both were filled with the sacred afflatus; Bunyan in Bedford jail, Raleigh in the Tower, Dante at Ravenna, John Brown at Harper's Ferry, all these withdrew from the sorrows that compass the actual into that serener realm of ideality that hath a balm for every worldly wo, besides whose still waters there is perpetual peace and

joy. Have these great spirits and their like lived in vain even for our prosaic century? Are not the associations which touched their hearts, the uplifted thoughts that charmed their meditation in some measure possible to you and me?

It is imperative to make a stand against the materialistic onslaught that art, literature, and society are conspiring to effect, lest we be overwhelmed by its fury. When a novelist high in repute caters to the prurient taste of the public in all his work; or limits us to the trivial accidents of an hour; when an artist sets his palette with meretricious colors and the sculptor prefers Quincy granite above Carrara marble; when even music struggles for expression and we are commanded to applaud formless compositions of aspiring, yet, questionable genius, till we sigh for a simple, tender adagio of Mozart, tranquil and suggestive as moonlight on summer seas, is it not time to square our shoulders and strike a blow for goodlier things? If fidelity to imagination, to ideal standards leads to social ostracism, better, infinitely, that silent converse with the best and truest in us than communion with lesser souls!

It was the fashion, when that wise and gentle critic, Matthew Arnold, spoke to us of "the saving remnant," to sneer at his earnest plea for natural selection in society. His doctrine was heinous in our democratic sight. This question involves a higher consideration than the gratification of the American public, namely, the testimony of history and the truth revealed by personal experience. It is, we can in modest moods imagine, of small consequence to heaven whether our vaunted greatness outshines all others; it is of vital import whether truth shall suffer at our hands. To every one, the parting of the ways must come soon or late. Here lies the path to comfortable compliance with the thoughts and manners of those with whom our lot is cast.

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Vox populi, vox dei—"a plausible motto for a republic, but, wanting in philosophical veracity." For what, let me ask only, clamored the people before that conscience-smitten tribunal well-nigh twenty centuries ago! No, in this other path, in the pursuit of the ideal, we stand alone, save now and then it be that some kindred soul should bear us company. The fashion of the times, what the Romans are doing at Rome, have no significance or interest for us. Their idols are not our deity, their aims are foreign to our purposes. Each dreams, frames in his thoughts his own type of perfect nobility and truth, and in the world and by his own hearth-stone the high resolves, deepened by secret deeds and words, make him lowly great, whatever be his earthly lot—or, moulding his desires in conformity with alien manners and opinions, he waives his spiritual freedom and is fused in the general mass.

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Fidelity to the ideal asks of us, as a primary requisite, strong individuality as well as the gift to perceive the good, the beautiful and the true. There must be no half-heartedness, no temporizing with our convictions, no relapse into the lethargy of despairing doubt and hopeless endeavor. We live in a "blatant land", and every day the prestige of material success is imperceptibly shaping in the public mind a plutocratic worship unspeakably sad and pernicious in its effects. How far the noxious influence of its examples has proceeded may be noted in the pregnant expressions of skepticism heard on all sides among those to whom fortune has brought no harvest save weariness and discontent.

The *carpe diem* of Horace has become a cardinal maxim in the code of those who would sacrifice all to present ease and self-indulgence. "Life is a journey; live well on the road." "We have but one short hour upon earth; let us make the most of it." "It will be all the same a hundred years hence." "We'll make it right in the morning." "It's all in a lifetime." These current phrases betoken, in their collective animus, all too clearly the shrinking conscience and sybaritic desire so widespread among us. All ends at last in disenchantment and self-reproach. The jaded faculties, tired of the restless search after the peace that passeth *not* understanding, surfeited with idle pleasure that offer no stable felicity, finally recoil upon themselves, only to find that the youthful ardor which once cherished a fair and ennobling ideal has been stifled in the deadly atmosphere of hard fact.

No power can exorcise the Mephistopheles welcomed to the fireside of exultant hope. Bitterly must our hapless Faust recall the early joy, where in his meditation in the presence of the Sublime Spirit, smiling upon his lowly heart in the benignity of natural loveliness, his spirit caught the

blessed rapture of imaginative longing ere it yielded to the passionate eagerness which all worldly possession could not assuage.

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Very fortunately for us, or for those of us who prefer truth to mere conformity and prize thoughts above things, the ideal above the apparent, there is another and more comforting aspect of the seemingly sad plight of blind humanity,—and this we will now consider.

In ancient Greek ethics, Saturn, overcoming Uranos, cast his mutilated body down into the sea, where, from the froth churned up by the mightly fall, was born the mother of love, Aphrodite, from whom sprang the visible universe—a shadowy, sensual imitation of the real world, which is invisible. That is, time (Saturn), which is one name for anthropomorphism, mutilates in man's mind that immaculate conception of heaven with which each soul comes into the world, and he replaces divine love with sensual love; and lo! fleshly children are born instead of angels; pure thoughts. So, also, the ancient Hebrews inform us that the first creation is pure, Love's image and likeness, and that the second is of earth, fleshly, desirous, capable of temptation. And in Orphic philosophy all visible things sprang from Nox, night; as, according to the Hebrews, Eve, the mother of the unhappy human race, came of Adam while he was asleep. When our eyes are shut to the real truth, we self-create a substitute mistaking that for the real.

It is because of these two phases, truth and appearance, that we have culture. Culture, in the last analysis, is trust, the possession of which by a man directs his attention to the purity and beauty which the wise knows lies at the root of everything and every action. It enables us to distinguish the real from the false, because its business is solely with the god in man, ignoring the devil in him: so that, if a person were all devil and no god, culture could not know him, nor he it; while, if he were all god, that is, all love, he would stand the living personification of culture. We see the fall of this idea in what is called breeding, deportment, social etiquette; for, these are the apes and shadows of love, affording to the ignorant and superficial now and then a vision or floating image of the real kindness and love that should initiate every action of mankind.

Lowell said that the highest outcome of culture is, simplicity—not the simplicity which, with wide eyes and mouth agape, beholds glittering externals, not the simplicity of the rustic, which sees in every extraneous object something that he does not possess and which, therefore, he wants; but, the simplicity of wisdom, which sees in all things only effects, not causes, knowing that all causes lie within itself, and which, therefore, renders its possessor incapable of envy, resentment or longing, endowing him with a vast capacity for love.

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If Plato sees that "poetry comes nearer than history to vital truth," it is because culture has so far opened his eyes to what vital truth is that he is able to distinguish it even through the voluminous folds of the apparel with which men habitually envelop it, and upon which they bestow the names history, arts, sciences, religion; because culture has raised him to so lofty a level that he can examine vital truth, not as a boy reading history, but, as a principal character in the history, himself. "It is not proper" says Zoroaster, "to understand the intelligible with vehemence; but, if you incline your mind, you will apprehend it—not too earnestly, but, bring a pure and inquiring eye. You will not understand it as when understanding some particular thing, but, with the flower of the mind." This is culture. Without this as directed to painting and sculpture, there could be no Raphael, no da Vinci; to music there could be no Beethoven, no Wagner; to literature, no Goethe, no Shakespeare, no Emerson; and, to life, no Christ. This culture, this love, this trust is the one vital difference between the poor brute and the pure man, and, in the proportionate absence of it in each observer, we see the reason why men and nature, as well as his own birth, unhappiness, and death, are such incomprehensible mysteries to him. The more love a man has, the more he sees simple reason where others see mystery and rank injustice.

(To be continued.)

Among the Books

PRICE: "PUBLIC HEALTH AND HYGIENE"

Public Health and Hygiene. By George M. Price, M. D. Second edition, thoroughly revised. Philadelphia and New York: Lea & Febiger. Price $1.50.

This little manual, or epitome, of hygiene and public health contains the essentials of what has become a distinct science and about which a voluminous literature has developed within recent years. It contains, in a small compass, the information that every general practitioner should possess concerning problems of hygiene and public health.

After the introductory chapter, the author takes up the discussion of housing-hygiene, school-hygiene, industrial hygiene, public-water supply, food supply, milk supply, the disposal of waste matter; public nuisances, the prevention of infectious diseases; federal hygiene. Thus, it will be seen that for physicians that are not public-health officers and, therefore, obliged to study the questions of public health in greater detail, Doctor Price's little book offers just what should be known.

OVERTON-DENNO: "THE HEALTH-OFFICER"

The Health-Officer. By Frank Overton, M. D., D. P. H., and Willard J. Denno, M. D., D. P. H. 8vo., with 51 original illustrations. Philadelphia and London: The W. B. Saunders Company, 1919. Price, $4.50 net.

In contrast with the book just above reviewed, the present volume is intended for the information of the health-officer as to what he must know in order intelligently to discharge his duties. It tells the health-officers what to do, how to do it, and why they should do it. It describes the various activities in which a health-officer engages, his relation to boards of health, physicians, social agencies, and the public; his qualifications and methods of work; the various diseases and insanitary conditions with which he deals; and the scientific principles upon which preventive medicine is founded.

The book is the result of the years of experience of authors in public-health work both in rural communities and in the city of New York, and as supervisors of health-officers under the New York State Department of Health. While the book primarily is designed for health-officers, its simple language and untechnical form will commend it to college-students, public health nurses, members of boards of health, social workers, teachers, and others interested in public-health work.

BROWN: "RECOVERY FROM TUBERCULOSIS"

Rules for Recovery From Pulmonary Tuberculosis. By Lawrason Brown, M. D. Third edition, thoroughly revised. Philadelphia and New York: Lea & Febiger. 1919. Price, $1.00.

Doctor Lawrason Brown's rules for recovery from pulmonary tuberculosis have been followed, during the last few years, by a good many tuberculous patients, with decided advantage to themselves. To those to whom the author's name is not familiar, it may be of interest to mention that he is a pupil and for years was a close associate of the late Doctor Trudeau, at Saranac Lake, whose methods of treatment and whose views concerning tuberculosis very naturally were imbibed by Doctor Brown.

This little book was written by Doctor Brown for the layman; it gives just the right amount of information, both in quantity and quality, to serve the intelligent patient, and to enable him to take up and bear his burden courageously and persistently; also with a good chance for success. There is any amount of good sense in this little book, and its reading should

not be confined to patients alone. Most general practitioners can glean many wholesome lessons from its pages. Also, they may use it as textbook for their patients.

FISHER-FISK: "HOW TO LIVE"

How to Live. By Prof. Irving Fisher and Eugene Lyman Fisk, M. D. Fifteenth edition, completely revised. New York and London: The Funk & Wagnalls Company. 1919. Price $1.50, net.

Since the first edition of this book of rules for healthful living was reviewed in these pages (Sept., 1916, page 799), fourteen new editions have been issued; proof that the book certainly filled a want and afforded much useful and needed information.

The most recent editions of the book have benefited from the recognition, in General Crowder's reports, that close to 40 per cent of the men called, drafted into the army in 1917 and 1918 were disqualified for active military service because of physical defects. The pity of it is, that a great many of these defects could, and should, have been avoided. The important point, however, is that the fact is being recognized as it never has been appreciated before and that strenuous efforts now are being made throughout the width and breadth of our land to prevent preventable ill health or imperfect health and to better the health of the people in whatever respect it can be improved.

This is one of the chief purposes of the book under consideration, and we can but repeat what we have said in our earlier review, namely, that the purpose of this book has been well achieved and that it undoubtedly is a valuable guide for interested students.

SIMON: "CARRIERS"

Human Infection carriers: Their Significance. Recognition and Management. By Charles E. Simon, B. A., M. D. Philadelphia and New York: Lea and Febiger. 1919. Price $2.25.

This is a book that, manifestly, ought to be studied by every general practitioner for the reason that the subject of infection carriers is of the greatest importance. It is somewhat in the nature of a shock that the information comes to us in the preface that, in institutions in which infectious diseases are treated which are apt to result in the development of the carrier state, no examination is made previous to the discharge of the patient to ascertain whether or not he is apt to prove a menace to others. Evidently, not only in these institutions but also in private practice, it should be incumbent upon physicians in charge to see to it that their patients who recovered from a communicable disease are not "carriers" in the accepted meaning of the word and that they will not endanger others with whom they may come in contact.

The book deals with a discussion of the problem under consideration only in connection with those diseases of bacterial origin or which are due to the activity of a filtrable virus and in the dissemination of which healthy human carriers are now known to play a role, viz., carriers who either have never passed through an attack of the corresponding malady themselves, or, having done so, have clinically recovered. The maladies in question are, cholera, diphtheria, typhoid and paratyphoid fever, dysentery, epidemic meningitis, poliomyelitis, pneumococcus pneumonia, certain streptococcus infections (such as camp septicemia, bronchopneumonia, septic sore-throat, erysipelas and puerperal fever), influenza and, possibly, also the pneumonic form of plague.

BEST: "THE BLIND"

The Blind: Their Condition and the Work Being Done for Them in the United States. By Harry Best, Ph.D. New York: The MacMillan Company. 1919. Price $4.00.

This exhaustive study of the various problems presented by the presence of blind persons among our population was referred to, editorially, in our July issue (page 468). Blind people seem to have a peculiarly insistent claim upon our sympathy and our assistance, especially if it is considered that, in so many instances, their blindness was acquired, without any fault of their own, through the carelessness of accoucheur or midwife, and, originally, through the sins of one of their parents, operating through an unhealed gonorrheal infection. In other cases, trachoma, glaucoma, and other serious eye diseases have caused blindness. Only comparatively infrequently is blindness the result of an industrial accident. At the present time, a not inconsiderable number of blind returned soldiers are be-

ing taught the means of readjustment and independent work, having been blinded at the front through various agencies.

From a study of the sixth chapter of the book, devoted to the causes of blindness, it appears that, as a fair estimate, 64 percent, or nearly two-thirds of the blindness in the United States, is of a preventable nature.

That being true, it manifestly is our duty to study the problem of blindness with great care, in order to alleviate and ultimately to remove the various causes now all too often leading to this affliction. We frequently have had occasion to refer to the activities of the National Committee for the Prevention of Blindness and now wish to direct the close attention of physicians to this study by Doctor Best in which "all about the blind" has been collected and collated with unusual care.

The book is most valuable for those studying blindness in its socioeconomic aspects; it also serves to center the attention of physicians upon a physical disability that they, more than others, are called upon to prevent.

HOFFMAN:: "EVERYDAY GREEK"

Everyday Greek: Greek Words in English, Including Scientific Terms. By Horace Addison Hoffman. Chicago: The University of Chicago Press. 1919. Price $1.35.

Here is a useful little book, one that presents a brief course for studying the derivation of English words of Greek origin. The medical profession should feel grateful to the author for having given a preponderance of medical terms in listing and discussing scientific terms. The reason for this is, that the author has tried (and succeeded) to make his work especially helpful to medical students; moreover, the medical terminology has, to a certain extent, been handed down from the ancient Greek physicians and preserves more fully the true Greek forms and meanings than does that of most other sciences; and, further, many of these medical terms have come into general use and belong to everyday speech.

However, the Reviewer can not quite conceive how anyone with absolutely no knowledge of Greek would proceed in studying this book. It may be supposed that success would depend entirely upon the "sticktoitiveness" of the individual student. As for the Reviewer, himself, although his days of Homer lie back more years than he cares to count, enough has "stuck" in memory to enable him to greet old familiar friends in the pages of this book, while, alas, enough has sunk below the horizon of consciousness or knowledge to make him very grateful for the assistance afforded in these pages. The book is recommended to physicians desirous to know what they are talking about, to understand the meaning of the terms employed daily and thus to accustom themselves to a correct diction.

"THE MEDICAL CLINICS OF NORTH AMERICA"

The Baltimore number of *The Medical Clinics of North America* contains a clinic of Dr. Lewellys F. Barker's on funicular myelitis, or combined sclerosis of the spinal cord. Dr. Julius Friedenwald discusses personal experiences in the treatment of ulcer of the stomach, while Dr. John Ruhrach deals with some of the aspects of epidemic influenza in children. The influenza-epidemic is recalled to us, further, by Doctor Clough's discussion of pneumococcus-sepsis, also by Doctor Bloomfield's clinical diagnosis of epidemic influenza. In addition to these, there are presented a number of other clinics dealing with subjects equally as important and interesting as those that have been mentioned.

The Medical Clinics of North America, of which this issue is number 6, volume 2, is published bimonthly by the W. B. Saunders Company, of Philadelphia, at an annual subscription-price of $10.00.

WHITE: "PROSTATIC DISEASE AND IMPOTENCY"

Prostatic Disease and Impotency. New and Original Methods of Treatment. Illustrated. By George Starr White, M. D. Los Angles, California. 1917. Price $5.00.

This is the latest book from the pen of that indefatigable worker along new and original lines of treatment, Dr. George Starr White, whose "Lecture Course to Physicians" is well known to the readers of Clinical Medicine. The book before us is printed, in accordance with Dr. White's custom, on a manilla-tinted paper which certainly is restful to the eyes. The type

is clear and legible, while the spelling, conforming with the 1918 bulletin of the Simplified Spelling Board, is somewhat disturbing to those not accustomed to it.

Dr. White discusses prostatic disease and especially its diagnosis with reference to the "bio-dynamo-chromatic" system of diagnosis that is original with him in its present form and application. Among the causes of prostatic disease Dr. White attributes even greater importance to venereal diseases, notably gonorrhea and syphilis, than is admitted commonly. This is because of the fact that a great many patients, who either have apparently been cured of their venereal diseases or in whom no symptoms have ever been manifest, show a positive bio-dynamo-chromatic reaction.

In the treatment outlined, Dr. White gives ample reason for the faith that is in him. He is, by no means, a therapeutic nihilist, employing certain drugs where they are indicated with persistence and, undoubtedly, with good results, but he depends largely upon physical methods of treatment, electricity and the various rays, including the quartz lamp (artificial sunlight).

The Reviewer has been impelled to read this book through rather carefully because of the interest that was aroused by it. We believe that physicians studying the book will be attracted in the same manner.

PATTEE: "PRACTICAL DIETETICS"

Practical Dietetics with Reference to Diet in Health and Disease. By Alida Frances Pattee. Twelfth edition, revised and enlarged. Mount Vernon, New York. A. F. Pattee, publisher. 1918. Price $2.00.

Pattee's "Practical Dietetics" has become an annual publication, a new edition being issued each year, revised, so as to incorporate the latest results of research in dietetics; this assuring this useful little book being constantly kept up to date.

This book strikes us as being eminently useful and practical for physicians as well as nurses. The theory of nutrition and of dietetics is condensed sufficiently so as not to become cumbersome, while the practical part contains a wealth of recipes for foods, including attractive and nutritious dishes and beverages, besides the necessary guidance for the arrangement of suitable menus, with regard to their contents of proteins, fat, carbohydrates, and so on.

While, to pick out one example, it has generally been agreed upon among tuberculosis-physicians that the stuffing-method in vogue not so many years ago is to be deprecated, because it is essentially harmful to the patients whose digestive and assimilating powers are weakened, Miss Pattee outlines a plan of diet for tuberculosis-patients that appeals to the Reviewer as being eminently sensible. For instance, a man that at active work might have required from 3,000 to 4,000 calories per day would, at complete rest and while under treatment for tuberculosis, receive sufficient nutriment from food representing 2,500 calories.

On the other hand, the man of sedentary occupation, of the same weight, who, in normal health, required, say, 2,500 calories, might need 3,000 calories while being treated for tuberculosis if his treatment would include in part some light exercise. In similar manner, the diet for tuberculous patients, as, indeed, for patients suffering from almost any disease affecting the assimilative powers, must be strictly individualistic and may not be regulated according to a fixed routine plan.

In the chapter on diet in diabetes, the Allen treatment, of course, especially as elaborated by Doctor Joslin, receives close attention and has been described fully. In the diet prescribed for patients having gastric ulcer, we miss, strangely enough, that method originated by Doctor Bertrand Sippy, of Chicago.

Pattee's "Practical Dietetics" may be recommended without hesitation as a useful, handy, and fairly complete manual that can be consulted with confidence.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

"Fracture of Clavicle."—In answer to one of your inquiries (Query 6443, this journal, August, p. 602), regarding the treatment of a fractured clavicle, permit me to say that there is no dressing yet devised that will immobilize the fragments in apposition, in a fracture of the clavicle, for any length of time that will give anatomically good results. Experience has shown that even the x-ray frequently does not show the full extent of the injury. In my experience, the majority of fractured clavicles have three fragments one of which usually is a rectangular piece that slips behind the other two fragments. The only really safe, the only reliable means of immobilizing, therefore, is by open operation and laying plating. This, when perfectly done, keeps the fragments in absolute apposition, the only disadvantage being, in some instances, that the plate must be removed later. However, at that time ossification already has taken place and the plate has performed its function. A great many surgeons approximate the fragments with kangaroo tendon and, while that holds the fragments near each other, it does not give accurate apposition and when healing is completed the x-ray does not show the outline of the normal clavicle but shows the fragments overriding. I will agree that practically we may get a good result from the Sayre-Velpeau dressing, and also with the kangaroo tendon suture. But, anatomically, there is not a perfect line of continuity of the normal clavicle.

BENJ. H. BREAKSTONE.

Chicago, Ill.

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[We are glad, indeed, to receive this information from Doctor Breakstone who is an experienced surgeon. The procedure described by the Doctor undoubtedly will assist some of our readers in securing better results in their fractured-clavicle cases. —ED.]

Queries

Query 6448.—"Nocturnal Epilepsy?" G. L. C., Maine, presents for consideration the case of an Italian, 37 years of age. "The patient, a strong, well-proportioned, well-developed man, stonecutter by trade, began, about two years ago, to wake up his fellow sleepers by crying out in his sleep. His friends tell him that he is pale when thus crying. He retires at different hours and just after he falls asleep he will cry out—a good loud cry, not a moan, but a cry that suggests fright. It matters not what is his work, what he eats, what he reads or converses about before going to bed. He has no pain except for a precordial distress when he cries loud enough and often enough to wake himself up. His reflexes are normal; his blood pressure, though, is below normal. The Wassermann test shows a negative reaction. The urine is normal. The only physical peculiarity about this man is that his finger-ends are clubbed with a fatty enlargement or swelling along each nail. He has consulted many doctors of different schools and has stayed at hospitals, for observation. He has received no benefit whatever."

It would appear that this is a form of nocturnal epilepsy and, under the circumstances, we should make a very thorough examination of the patient and keep him

under close observation. Careful dieting, the maintenance of thorough elimination, and the administration of small doses of the bromides may control the condition; still, it is just likely that circumcision and thorough dilatation of the anal sphincters will exert a more definite influence.

Ascertain the family-history, pulse rate, blood pressure; and, if the patient is addicted to the use of tobacco or drinks coffee in excess, interdict them.

The fact that his man has been treated by many physicians and has been under observation in hospitals would lead us to believe that you will have great difficulty in ascertaining the basal pathology.

Bear in mind that, in some such cases, dilatation of the urethra, with cold steel sounds (increasing by one size at each sitting) sometimes has proven extremely beneficial.

Query 6449.—"Scabies." G. L. S., Missouri, wishes to know what we recommend for the treatment of general itch—very few lesions.

By "general itch," we assume that you refer to a true scabies. In such cases, treatment is purely external and the three essential remedies are, sulphur, balsam of Peru, and beta-naphthol. Unquestionably, sulphur is the more effective of the three.

It is essential that the burrows of the parasites be opened up, and this result may best be secured by having the patient take a prolonged hot bath and then scrub with green soap using a bristle brush. The body may then be rinsed and the tub be refilled with warm water, into which one pound of flower of sulphur is poured. The sulphur is taken up in the hands and rubbed thoroughly into the body for some time. The skin is then dried and the patient dons a union-suit into which sulphur has been thickly dusted. In the morning, he sheds this suit, takes another bath, then puts on clean (preferably new) underwear. One such treatment, properly carried out, frequently proves curative.

A very effective ointment is one containing flower of sulphur, drs. 4; balsam of Peru, drs. 4; beta-naphthol, dr. 1; benzoinated lard and petrolatum, of each enough to make 4 ounces. Before this ointment is applied, the patient takes a hot bath, and, if the skin is not oversensitive, scrubs with green soap. The ointment is then rubbed vigorously over the entire surface below the chin-line. This procedure is repeated each night for two to four days, the patient not changing his underwear. Ten or twelve hours after the last application, the patient takes a bath, then changes his underwear and also his bed-linen.

The only internal medication that at all could prove of benefit is arsenic sulphide, administered in alternation with calcium sulphide.

Do not forget that pruritus hiemalis (winter-itch) and several other dermatoses quite frequently are confounded with scabies. As a matter of fact, very few cases of socalled "prairie-itch," "digs," "scratches," et cetera, are an effect of the presence of the acarus scabiei.

Query 6450.—"Dioscorea as an Antispasmodic." W. K. J., Kansas, reports that he is having "all kinds of success with dioscoroid as a pain-reliever in sciatica, dysmenorrhea, and colic of every description." He wishes to know whether the drug can be given hypodermically.

Dioscoroid, being a concentration of the vegetable drug, is not completely soluble, so that serviceable hypodermic tablets can not be prepared from it.

As you are aware, dioscorea villosa has long been recommended as an antispasmodic, and is of value, not only in bilious but also in other forms of colic, painful abdominal neuroses, and gastrointestinal irritation. As a rule, if relief is not secured within an hour, the drug should not be further relied upon.

In the pain incident to the passage of biliary calculi, the dioscoroid should be associated with full doses of gelsemoid.

Dioscorea has proven valuable in some neuralgic affections, spasmodic hiccough, obstinate vomiting, gastralgia, dysenteric tenesmus, and dysmenorrhea. The Eclectics consider it useful in indigestion, hepatic congestion, and chronic gastritis of drunkards; also to allay after-pains.

Very large doses are liable to produce vomiting.

It is just possible that a fluid preparation of dioscorea suitable for hypodermic use could be prepared; still as already pointed out, the preparation of hypodermic tablets does not seem feasible.

We shall investigate this subject further and trust that you will favor us with a

further report on your experience with the drug.

Query 6451.—"Anemia of Uncertain Origin." P. F. L., Alabama, has, as a patient, a boy of 15, weighing 95 pounds. His skin is clear, smooth, and soft; mucous membranes are pale; tongue is pale, with a slight brownish-white coat. He is neither fat nor emaciated. The lymph-glands are here and there slightly enlarged; his muscular development is moderate; posture is erect; bones and joints are all right; also his lungs; pulse is 66 per minute; no murmur or thrill are detectable in the heart, but, the first sound is accentuated. Liver is enlarged, tender all over; the spleen is very slightly enlarged or maybe normal. His face swells somewhat during sleep.

"He perspires very little; drinks very little water, possibly a quart in the twenty-four hours; feels tired and worn out all the time; appetite is very variable; there is shortness of breath upon exertion (pretty severe exertion is required, according to my observation); he rests poorly, dreams a good deal; is moody, and has despondent spells; he worries when he has to miss school; has indigestion, also alternating constipation and looseness of the bowels (it can not be called diarrhea). He has had the measles and attacks of malaria. Is very fond of sweets (candy, cane-syrup).

"At present, he is receiving chionanthus, 10 drops, every hour. All sweets of any character are forbidden. He takes dilute hydrochloric acid before meals, taken in a glass of water."

We regret to say that, with the information supplied, it is difficult to venture a diagnosis. You say this boy has never been in good health. Under such circumstances, a Wassermann test might prove decidedly informative. Anemia is evident, and the enlarged liver and spleen are suggestive.

As you will observe, the quantity of urine voided is excessive, especially considering the rather limited amount of fluid ingested. The test indicates that sugar is present to the extent of 4.21 Grams and that the total urea is 11.78. There are present a few renal cells, colon-bacilli, and staphylococci, besides a few pus-cells and a moderate amount of squamous epithelium.

Were we in your place, we should investigate this youngster's sexual habits, and place him on an almost carbohydrate-free diet and push galactenzyme. In addition to chionanthus, which is an excellent remedy in such cases, we should give, after meals, berberine and the arsenates of iron, quinine, and strychnine, with nuclein.

This boy should be kept under observation for a prolonged period, and, we believe that treatment will have to be varied from time to time to meet changing conditions. He should, of course, spend as much time as possible in the open air, exercise moderately, and be instructed in deep breathing.

It would be well to submit to a reliable laboratory specimens of his blood. Also, it would be well to throw some light upon the family-history, especially with reference to syphilis and tuberculosis. The possibility of a chronic malarial infection must not be overlooked.

THE TREATMENT OF THYROID INTOXICATION

In a case of "internal," or, better, intrathoracic goitre, reported by Dr. Joshua H. Leiner (*N. Y. Med. Jour.*, August 2) in a Russian woman, thirty-four years of age, the Forchheimer's treatment, with quinine hydrobromide and ergotin, caused a slight improvement in the thyrotoxicosis. It is needless to state that the dietetic and hygienic surroundings received suitable consideration.

When this treatment was stopped, a relapse occurred, the symptoms of which, as far as they were manifested in hot flushes and tremor, yielded to ovarian extract. When decided symptoms of relapse became manifest, this patient was given five-grain doses of thymus extract three times daily through which a decided improvement had become evident two weeks later.

Doctor Leiner mentions that, in case of exophthalmic goitre, the thymus likewise undergoes a hyperplasia; and although theoretically the feeding of this gland is contraindicated, clinical experience teaches that beneficial results have followed its administration.

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The Climacteric

THE climacteric usually is considered to mean that period of life that follows the time when the organism has reached its highest functional development and after which certain manifestations of involution take place that, usually, manifest themselves through some phenomena that may assume the severity of actual climacteric disease. In women, the climacteric commonly is placed at the time when the productive function ceases, that is to say, at or about the time when the menstruation no longer occurs. After this, in ordinary cases, women no longer conceive and bear children. They by no means become old, however; indeed, it happens frequently that a period of sickliness or poor health persisting up to the time of the menopause is followed by one of increased bodily and mental vigor and of splendid accomplishment.

It is assumed, often, that a series of physical changes take place in men as in women after the climax of physical evolution has been passed manifesting themselves in various functional, nervous and mental disturbances. While Nascher places the time of the climacteric in men at the age of sixty-three, it is commonly assumed that this takes place more often at the age of about fifty. It is then that we look for certain circulatory imperfections, it is at that period that the bugbear of arteriosclerosis makes its appearance, and it is then that men frequently experience a breakdown which may prove serious and beyond repair.

It is interesting to note that the ancients postulated a series of climacteric years, the first of which took place when the child had reached the seventh year of age. The Greek physiologists spoke of five epochs at which the body is particularly affected and suffers considerable alteration. After the first "climacteric," occurring at about the seventh year, the later ones were assumed to take place at multiples of seven, by three, seven and nine, thus the climacteric occurred at the twenty-first year, being the result of three times seven; the forty-ninth year being produced by seven times seven; the sixty-third, or nine times

seven; and then the eighty-first, or nine times nine. The two last were called the grand climacterics, or climacterics proper, as being those in which the life of man was supposed to have consummated itself and beyond which nothing is to be accomplished but a preparation for the grave (Good, "Study of Medicine," Sixth American edition, New York, 1835, Vol. 2).

At these grand climacteric periods so decided disturbances are occasionally observed that Good classifies them deliberately as climacteric marasmus, or climacteric disease; following in this a description by Sir Henry Halford in the *Medical Transactions.*

For our purpose, it is not the period of bodily decay that we desire to emphasize as an important climacteric. Not that we deny importance to the changes incident to old age and senility; but, inasmuch as it is the prominent function of the physician not only to relieve suffering but to restore health and the possibility to continue the activities of health as far as this is possible, we naturally are more interested in the climacteric period taking place at seven times seven, or forty-nine years of age—or thereabouts.

As to the climacteric period in women and its physical and mental disturbances, much has been written, and these phenomena are fully recognized while not yet fully understood. It is assumed, of course, and justly, that they stand in relation to the cessation of certain internal-secretion glands to function and to supply the organism with their respective hormones which, undoubtedly, influence it profoundly. With the involution of the ovaries and the simultaneous loss of their internal secretion, the female organism is deprived of a potent stimulator and regulator, as it seems to be borne out by the success attending the administration of ovarian substance in certain disorders of the menopause.

In men, we have to postulate a parallel climacteric period which, though, is less well and clearly manifest, owing to the fact that there is not a function parallel to menstruation, the cessation of which would give the same indubitable evidence of a definite change having occurred. Nevertheless, the period that follows upon the attainment by the male organism of the climax of physical development and power is accompanied by certain manifestations that are no less worthy of remark and momentous than are those observed in women. In accordance with ancient observations as they are outlined in Good's "Study of Medicine," for instance, this like the other climacterics may be followed by an exaltation of physical and mental processes and it indubitably is characterized often by profound and possibly serious alterations in the mental attitude.

Among the original articles presented in this number, Doctor Lydston and Doctor Candler present case histories illustrating some rather serious aspects of the difficulties with which the men having passed the zenith of life are confronted. It is then that nervous breakdowns take place; it is then that distressing afflictions, such as periodical mania, are observed; it is at this time that many good men go to the dogs, and that others lose their grip and go under, finding themselves without sufficient inner resources and nerve force to continue the struggle for existence.

The climacteric in the male sometimes is smiled at as though it were something funny. It isn't, not by a long shot. It is about as serious a period of a man's life as he ever passes through. It is the time when he is supposed to have acquired a competency, when it is assumed that he may let up a little, even though he is by no means to be shelved. It depends on him, on his environment, on the wisdom with which he confronts the various changes taking place in his physical and mental make-up and also upon the guidance that he may receive at the hands of his wise or foolish medical advisor whether he will pass through his climacteric disease unscathed and come back to continue as a useful and successful producer or whether he is to be thrown into the discard. Fortunately, some of the greatest accomplishments in all phases of human activity stand to the credit of men passed fifty. Let that be a cause for encouragement. But, above all, let physicians study the disorders and difficulties of this climacteric in the male occurring at about fifty years of age and let them learn to guide their patients wisely

ALTERATIVES

Down to about a generation ago, the term "alterative" was quite frequently encountered in medical literature and the

thing for which the name stands was considered a valuable resource in therapeutics to a much greater extent than it is at the present day. Indeed, it is a question whether our therapeutists of today are not overlooking something of value. The splendid advances in surgery and the brilliant discoveries in the field of toxins and antitoxins and serums and hormones have a tendency to cause a degree of neglect of some of the fine results in therapeutics that were the pride of our predecessors, and which are just as attainable today as they ever were. The new discoveries are, many of them, of inestimable value; nevertheless, it would be a distinct loss to the profession and to mankind, if this were to cause us to neglect the possibilities of the old materia medica and to cease the employment of certain remedies that have stood the test of clinical observation.

It can not be denied that the present-day profession is lamentably deficient in therapeutics. There still are among us skilled therapeutists; although they are fewer in proportion than formerly.

Whether we call this the result of the spread of "therapeutic nihilism" or something else, does not matter; the important thing is, that our medical colleges should pay more attention to scientific therapeutics based upon medical drugs. Our graduates have at their fingers' ends the newest nomenclature regarding antibodies and that sort of thing (which is all right and proper); but, most of them are pretty helpless when asked to cure a victim of, let us say, chorea.

We even hear the question asked, "Just what do you mean by an alterative?" This put with an air and an intonation that indicates in the questioner's mind a sort of amused tolerance of an obsolete relic of the crude and uninstructed past. In replying to this question, it would be to the point to say that there are few technical terms that define themselves more perfectly than does the word "alterative."

It is exactly what the name implies: a remedy that alters; more especially one that alters the conditions under which metabolism is going on in the body, causing more perfect elimination of wastes, and making possible better assimilation and improved appetite. The two processes of pulling down wornout tissues and replacing them by fresh material, which two processes are always going on in the body (metabolism) are mutually dependent upon each other.

Unless the old tissues are broken down and carried away, new ones can not be built up. Consequently, when we promote tissue-change and elimination of waste by means of an alterative, we are simply removing obstacles from nature's path and permitting it to function normally.

Lauder Brunton, in Quain's "Dictionary of Medicine," gives a list of alteratives, of which the most important are mercury, iodine, arsenic, sulphur, phosphorus, potassium, and sodium, including, of course, their various salts. It is difficult, in some instances, to distinguish between alteratives and tonics, as, for instance, arsenic and hypophosphites often are classed with the latter. The distinction is not important, since the main thing is, to get the result. In a general way, it may be said that both tonics and alteratives act by stimulation, the former stimulating organic functions, the latter stimulating tissue-metabolism.

The physician who has never seen what excellent results can be obtained, in certain chronic conditions, by the prolonged administration of small doses of alteratives, has something pleasant and valuable in store for him if he only will try it.

For example, the writer recalls a case in which the patient had, for a long time, been in bad condition, with no appetite, digestion poor, liver sluggish, constipation, autointoxication, and melancholia. He was given, after each meal, 1-20 grain of calomel, 1-50 grain of ipecac and 2 grains of bismuth subnitrate. Within a week, some improvement was apparent, and, in a month, his condition was nearly normal.

A boy of ten, with a tendency to adenoids and enlarged tonsils, and suffering from frequent colds and a temper growing daily more irritable and sullen, was given the same treatment except that the prescription was given only in alternate weeks; while, during each intermediate week, he was given a tonic containing reduced iron, 1-10 grain, quinine sulphate, 1-4 grain, arsenous acid, 1-500 grain, and strychnine sulphate, 1-500 grain. In two months, he was so much improved that even the school-doctor admitted that the boy did not need to have his tonsils and adenoids removed.

Sodium phosphate, in doses too small to act either as a laxative or a cathartic, say,

5 to 10 grains, in hot water before breakfast, may properly be regarded as an alterative, and often will give excellent results, provided the drug be continued for a considerable time.

Calcium sulphide, in a dosage of 1-10 grain, in furunculosis, acts probably as an alterative. The dose certainly seems too small to act as a germicide.

No, the alterative is not an absolute relic of a bygone age.

All of the opportunities—public and private—that may be offered to you are utterly worthless unless you USE them.—CARRY ON.

ROOSEVELT MEMORIAL ASSOCIATION

The Roosevelt Memorial Association has been organized by a number of friends of the late Colonel Roosevelt and subscriptions to a fund of ten million dollars will be taken during the week of October 20 to 27 of this year.

The object of the fund is: To provide memorials in accordance with the plans of the National Committee which will include the erection of a suitable and adequate monumental memorial in Washington, acquisition, development and maintenance of a park in the town of Oyster Bay which may ultimately, perhaps, include Sagamore Hill, to be preserved like Mount Vernon and Mr. Lincoln's home at Springfield.

The late Colonel Roosevelt has sometimes been called the most representative American. Original in thought, forceful in action, outspoken and courageous in defending and promoting what he considered just and true, fearless in fighting that which he looked upon as wrong, aggressive and enthusiastic; thus he was a figure in public life that always had to be reckoned with and a citizen of the United States whose opinion on all national questions was looked for by a great many before coming to a definite decision.

While Colonel Roosevelt undoubtedly was typically American in many of his characteristics, he was first of all a man, and a good man. Even his enemies—and like all great and forceful characters he had many of them—without hesitation conceded to him honesty of purpose, high ideals of manhood and of citizenship, an intense love of his country and a beautiful manifestation of love of family. Demanding as he did that which he considered to be right, he also showed the willingness characteristic of the Anglo-Saxon nature to give the other fellow a fair show. We believe it was he who popularized the expression "square deal." Colonel Roosevelt's enthusiasm and optimism, his irresistible if sometimes impulsive go-ahead policies, his insistence upon doing things, his overcoming all difficulties, his uncompromising demand for good citizenship, for clean living, not only personal but national and political all these characterizations certainly constitute qualities that go to make a good and great American.

It is fitting that Colonel Roosevelt's memory should be honored and kept alive in the hearts of the people. It is even more fitting that the means for the Roosevelt Memorial should be contributed by all classes of the people and that everybody should share in this work of love. Physicians as a class owe much to Mr. Roosevelt and we have no hesitation in predicting that they will contribute largely to this meritorious and, indeed, patriotic undertaking.

Contributions may be sent to Albert H. Wiggin, Treasurer, Roosevelt Memorial Association, 1 Madison Avenue, New York City.

POSTBELLUM PSYCHOLOGY

The psychology of the world, in these days of distraction following the great war, is an interesting study. The mental processes of the great majority of the human race are distinctly abnormal. The various classes are all suffering from the high cost of living, and they are running around in circles trying to find the cause and the remedy. The difference in the manner of expressing themselves corresponds with the difference in their mental development. The great general public, that usually patient beast of burden, is blaming the profiteers and demands that something be done; organized labor is using the strike, to force wages up to an unheard-of figure, blind to the self-evident fact that thereby they merely are increasing the cost of living by just that much more; while the bolshevist—no matter by what name called—is simply a maniac run

ning amuck, seeking to destroy civilization and plunder the wreck.

But, they all underestimate the great, fundamental cause of the trouble; namely, destruction of the world's wealth by the war. This destruction is estimated by competent authorities as being no less than 500 billions of dollars, and, if we include the producing-power of the human lives destroyed or crippled, this estimate probably is not excessive. Such a wholesale destruction of wealth can not but be felt in every corner of the globe.

So closely interwoven are human relations today that the loss to one is a loss to all. Was it not Macauley who said that, when an Esquimau on the shores of Hudson Bay beats his squaw, the price of furs rises in London, because production is decreased thereby? Every shell fired into the war, every town destroyed, every ship sunk, every farm laid waste had its share in producing the high prices from which we suffer and shall continue to suffer for a long time to come. It is doubtful whether the generation now living will see a complete return to the prosperity of 1914.

While the war-destruction is the great cause of our troubles, there are others that help to increase the general hardship. A great factor has been the way in which organized labor has, for many years, been forcing up wages and limiting production. True, to a certain extent, this has been justified and unavoidable; still, much of it is in the same class as profiteering in foodstuffs. One does not have to be a mathematical genius to see that, when a day's work is reduced, from ten hours, to eight, the cost of the thing produced will be increased in the proportion of 4 to 5; which is, 25 percent. When streetcar-conductors and milkwagon-drivers are getting more pay than do teachers and college-professors, and even more than many a physician earns, it is time for everybody to take a hand in seeing to it that greed is curbed and justice done. What encouragement is there to our young men and women to become educated and efficient when unskilled labor is better paid than professional training?

What is the remedy? The solution of the problem may be a complicated and difficult one; however, some points stand out quite clearly. First and greatest, is the need of increased production. There is no way of making up for lost wealth, except by producing more. Every strike merely puts off by so much longer the return to normal prices. Next, profiteers and middlemen must be under better control. Not least important is the need of more backbone on the part of the authorities in dealing with lawless elements that are forcing wages up to unreasonable figures. All men and women willing to work should be protected in their rights. And, finally, those who preach anarchy should either be deported or imprisoned.

Do not lose sight of the fact that you will receive only what you honestly want and go after; and that the support you get depends entirely on the support you are willing to give to yourself.—CARRY ON.

HEADS YOU WIN, TAILS I LOSE

The various schemes for railroad-legislation now before Congress, when boiled down and sifted, crystallize into two fundamentally different plans; the one urged by the National Transportation Conference held in Washington several weeks ago; the other, known as the Plumb plan, put forward by the railroad-brotherhoods.

The former plan contemplates the return of the roads to their owners, to be operated by them under such federal supervision as will protect alike the interests of the public, the stockholders, and the employees, and to minimize, as far as legislation can, the evils associated in the past with private ownership. The latter is government-ownership, with operation practically under the control of the railroad-brotherhoods, and the profits, when there are any, divided between the public (government) and the employees.

It needs but little reflection to see that the issue is now between class-interest and public interest. This conclusion can not be dodged or sidestepped. There is no middle ground. The issue is one of vital interest to every man, woman, and child in America, and we feel that even a medical journal should go on record in a matter where so much is at stake.

The National Transportation Conference was a notable gathering in more ways than one: not only was it made up of a great variety of representatives from all classes, but, the spirit in which they rubbed elbows with each other and exchanged views was one of the hopeful signs of the times.

There were farmers, bankers, railroad-employees and railroad-presidents, merchants, miners, manufacturers, ship-builders, soldiers, government-officials, university-professors, capitalists and those who hold the notion that capital should always be held under suspicion, besides many others. The Paris Peace Conference did not offer a more promising field for the ventilating of conflicting views than did this Transportation Conference, and, yet, the greatest freedom of speech did not result in wrangling nor heartburnings. The conservative financial wizard and the man who had been carrying a club for him found themselves seated at the same table and comparing notes in amiable fashion, each getting from the other something that he never had dreamt to be obtainable from that source.

If only the spirit of the conference could, by the railroad employees present, be conveyed to those that were not, the result would be most beneficial not alone to themselves, but to the general public as well. The vice-president of the Brotherhood of Railroad Trainmen said at the close of the meeting:

"I am convinced that it was no selfish or ulterior motives that prompted these gentlemen during their deliberations." Let the Brotherhood take this to heart.

The plan adopted by the Conference, to be submitted to Congress as a suggestive basis for legislation to cover the subject, is too long to be quoted here in full. Among its salient features are the following:

To return the railroads to private ownership and operation as soon as the necessary legislation can be enacted.

Consolidation of existing railroads into strong competitive systems.

All carriers engaged in interstate commerce to subject themselves, as corporations, to federal jurisdiction, including the regulation of rates.

To organize a Federal Board of Transportation that is to promote the development of a national system of transportation by rail, water, and highway; to regulate expenditures of capital and security-issues; to administer and enforce those measures that may be adopted for strengthening and stabilizing railroad-credits; to determine, in the public interest, the consolidation and grouping of railroads into strong competing systems.

Further, to stabilize railroad-credits by the establishment of three funds: (1) an individual railroad contingent fund, established by each road to support its own credit; (2) a general railroad contingent fund, maintained by contributions from all prosperous roads, and managed by the Federal Transportation Board, for the purpose of supporting the credit of all the railroads and for promoting the general development of the transportation-system of the country; and (3) a railroad reserve-fund consisting of a 500-million-dollar loan from Congress, to help maintain railroad-credit until the contingent funds can be put upon a solid basis.

Lastly, to provide for the adjustment of wages and working-conditions of employees, by boards consisting of equal numbers of representatives of railroad-employees and railroad-officials, with the Federal Transportation Board as referee.

Such a plan would seem to protect the interests of all parties—the public, the stockholders, and the employees—and assure for everybody a square deal. It would seem to protect against the looting of railroad-systems, by stock-speculators, that has been a national scandal in several instances in the past. It is in striking contrast to the socialistic Plumb plan that has been submitted to Congress by the railroad-brotherhoods, with thinly veiled threats or, perhaps, it would be more correct to say, threats not veiled at all, that they would compel Congress to accede to their demands. Whether the United States Congress can be influenced by threats, remains to be seen.

This plan contemplates that the government shall float an enormous loan of, possibly, 20 billions at 5 percent to purchase the roads. Then these are to be operated by a Board of 15 members, 5 to be appointed by the President to represent the public, 5 to be elected by the operating officials, and 5 by the classified employees.

The profits (if there be any) are to be equally divided between the public at large (the government) and the employees. Nothing is said about who is to bear the losses, if the balance should be upon the wrong side of the ledger. However, it does not require unusual perspicacity to

see who would be "the goat." Whoever heard of a profit-sharing scheme in which the employees took their share of the losses?

A little comparison of the two plans will prove instructive.

The Conference plan is based upon sound, well-tried business-principles; the Plumb plan is socialistic and visionary—no one knows whether it would work or not—it would be an experiment.

The Conference plan contemplates a loan, to the roads, of half a billion, to help put them on their feet; the Plumb plan contemplates the expenditure of 20 billions, not, as a loan, but, for outright purchase—supposing such a sum could be raised at present, which competent financiers seriously doubt.

The Conference plan protects the rights of all concerned; the Plumb plan allots to the brotherhoods half of the profits and none of the risk.

In the former plan, no set of men could have undue preponderance; in the brotherhood-plan, the control over wages is placed in the hands of a board that the railroadmen would control by a two-thirds majority, and whose other third they may control by political manipulation.

The brotherhoods have had much to say about the looting of the roads by Wall Street. As to this, *The New York World* comments: "The difference between the Wall Street looting-system and the Brotherhood looting-system is, that Wall Street provides the original investment for its operations, while the Brotherhoods insist that the United States (the people as a whole) must furnish the money."

Two million men want a "sure thing" at the expense of the other 98 million.

Uncle Sam buys the cow, feeds her, takes the risk of her getting sick and die; and then the hired man, after getting the wages, takes half the milk.

"DOCTORS ADOPT EIGHT-HOUR DAY"

A recent news item "tells the world" that the Vanderburg County Medical Association (Indiana) has adopted an eight-hour day, as far as possible, for its members—note the saving clause "as far as possible".

Ting-a-ling-ling-ling goes the phone at two p. m. The doctor has been up since three a. m., coming home tired and hungry at noon, and has just finished his dinner.

"What is it?"

"Oh, Doctor, please come. Little Wille has a tummy ache."

"Can't help it. I have worked over eight hours. My day is done."

"All right, Doctor, I shall have to call Doctor Next-Door. Goodbye."

Ting-a-ling-ling-ling.

"Drat that phone! Hello, Hello."

"Doctor, aren't you coming to the office?"

"I have done my eight-hour shift."

"I am sorry, Doctor. I was just going to pay you fifty dollars on the bill. Goodbye."

"Hello, wait a minute.—Drat that fellow! Oh, well—

Ting-a-ling-ling-ling.

"There it goes again. Hello, hello, hello."

"Doctor, please come over. My husband has had a bad fall."

"Well, I have done my eight hours today, and it's against the union rules for me to do more."

"But, Doctor, John is really ill. He looks dazed and he is bleeding, and he talks wildly, and I think it's serious."

"Oh, well, I guess I will have to come."

An eight-hour day for doctors?

It is no proof of a man's understanding to be able to confirm whatever he pleases; but, to be able to discern that what is true is true, and that what is false is false. This is the mark and character of intelligence.—Swedenborg.

IS MONOTONY OF FOOD INADVISABLE?

In his "Commonsense Essay on Diet," which Doctor Butler contributes to the current issue of CLINICAL MEDICINE, he expresses, with marked emphasis, his preference for a varied diet, declaring that monotony of food is as bad for the stomach as monotony of scenery is for the eye. One member of the editorial cabinet is strongly inclined to dispute this dictum, holding that the facts disprove the assertion—not alone as to animals that are confined to a limited diet (carnivora, herbivora, nut- and fruit-eaters, and, especially, some of the domestic animals), but, there are large classes of mankind, whole races, in fact thus limited; while moreover there is a growing sentiment that variation of food disconcerts the digestive

mechanism, thus contributing to digestive troubles.

The only tenable basis for demanding food variety and variation can be, that, under civilization, a completely balanced diet is impossible, and that, consequently, we must get at all the needful elements (notably the minerals, vitamines, ferments, roughage) seriatim, through daily rotation; and that this may account, in part, for the hankering for a changing dietary. The latter fact, though, no doubt is largely an acquired mental attitude, the result of luxurious living, since it is not present among the poorer people. Contentment with a simple life seems the real imperative reform, including more uncooked foods and less artificial "palatability."

There is one consideration through which monotony of food may become decidedly injurious, leading to symptoms of disease as they are observed in the socalled deficiency diseases, such as pellagra, beri-beri, scurvy and, to a certain extent, rickets; besides, at least in part, several other constitutional maladies. In these affections, however, it is not so much a question of eating one kind of food persistently—which sometimes is designated as monophagism and has been preached by certain food-faddists as one of the many sure cures extolled for all the ills of mankind.

In deficiency diseases, we are dealing with injury suffered by the organism, owing to the absence in the food of substances that are known as vitamines; or owing to the presence in the food of either contaminations or of products of deterioration. Regarding this point, *The Lancet*, for July 5, (p. 24) contains an instructive article on monophagism, pellagra and scurvy. It is declared here that an exclusive diet (monophagism) is not of itself invariably harmful, especially when it forms the traditional food of the species. Sometimes, however, it is not tolerated and causes pathological phenomena as in beri-beri and gout. The reason why guinea-pigs fed exclusively on maize die are complex; the want of antineuritic and antiscorbutic vitamines is probably less important than the deficiency of grass, which is the traditional food of the species. As a result of this, the fact comes into play that the molecular grouping of the proteins of cereals is not analogous to that of herbaceous proteins, and the amino-acid content also is different. Moreover, it is probable that every kind of unsuitable diet, if persisted in, favors the entry into the circulation of a definite quantity of protein not completely split up into amino-acids, which causes, on the one hand, alimentary anaphylaxis, and on the other, the appearance in the blood of ferments destroying the proteins themselves.

In monophagism therefore, there has to be taken into consideration not only the absence of certain groups, but also the presence in excess of other groups which are toxosensitising. Pellagra can not be caused by deficiency of proteins in a diet of maize, for, the amount of these is enough to satisfy the requirements of human food. It is always a disease of poverty, but the specific feature is to be found in the toxic or toxosensitising action of its overabundant constituents. In the same way it is considered that in scurvy there is a process of sensitising of the organism by a diet which is too exclusive, being deficient in certain constituents and disproportionally excessive in others. The same is true also of sprue and beri-beri. In view of the toxosensitising factor in pellagra, investigators have been led to consider the possibility of artificially increasing the resistance of animals to an exclusive diet.

Researches have shown how this can be done within certain limits and the possibility of the extension of the method to human beings. These views, which are of a highly speculative nature, will find a suitable test in their application to the prophylaxis of relapses in pellagra.

Some men will not shave on Sunday, and yet they spend all the week in shaving their fellow-men; and many folks think it very wicked to black their boots on Sunday morning, yet they do not hesitate to black their neighbor's reputation on week-ends.—Beecher.

VENEREAL DISEASE ORDINANCES.

The United States Public Health Service has prepared and recently issued *V. D. Bulletin No. 39*, under the title of "Venereal Disease Ordinances" which is a compilation of suggested and adjudicated ordinances that have proved successful in combating venereal diseases. Copies of this pamphlet undoubtedly can be obtained by addressing the U. S. Public Health Service at Washington, D. C., and

every Physician should be sufficiently interested in the subject to write to Washington for a copy.

Since venereal diseases are communicated mainly through the agency of prostitutes, the attempt has long been made to regulate prostitution, that oldest of all professions, as it has been called. Regulation in any direction except in that of elimination has been found woefully inefficient, and, despite all objections and assertions to the contrary, measures are now being undertaken throughout the country to actually regulate prostitution out of existence.

Naturally, it is asserted, cynically but none the less confidently, that this is not possible. However, the results of the suppressive regulations maintained by the U. S. Army and Navy are pointed to justly as a proof that it is actually possible to suppress the source from which venereal diseases are continued constantly. It is worthy of note that, in the tremendous army maintained by the United States during the war, there were only 200,000 cases of venereal diseases. This relatively low figure becomes even more impressive when it is considered that over 160,000 of these cases were brought in from civilian life and that less than 40,000 were acquired by the soldiers while in service.

The pamphlet under consideration puts the blame of continued prostitution squarely up to the municipal authorities. "Prostitution with its spread of venereal diseases flourishes only when such officers tolerate it or are complacent in their efforts to destroy it. Whenever word goes forth that a city has determined to free itself for all time of syphilis- and gonorrhea spreaders and that the machinery of law will be merciless in its enforcement, the prostitutes and pimps have reached the end of their business career in that particular city."

For the accomplishment of this result and of the more important one, that of eliminating venereal diseases, the bulletin suggests various ordinances that have been prepared for the purpose of dealing with the numerous phases of the problem. We are impressed with the completeness of the ordinances and it seems to us that, wherever a municipality desires honestly to rid itself of the chancre sore that spreads venereal diseases, it can readily do so by passing *and enforcing* ordinances like those suggested in this pamphlet.

Character is higher than intellect. A great soul will be strong to live as well as strong to think.—R. W. Emerson.

DRIVE WITH A LOOSE REIN

Not within the memory of living men has the world been in greater need of wholesome mental adjustment than at the present moment. The termination of physical warfare has left mankind in an attitude of uncertainty in which greed, selfishness and indifference are struggling for supremacy with the higher and nobler attributes.

It is just as difficult for nations to relax after the fierce contest of war as it is for individuals to come back to normal conditions after a prolonged mental and physical strain. There are sores, scalp wounds, limb losses and a thousand and one things from which the body politic is suffering after the great conflict on the other side, and these make it exceedingly difficult to relax.

The flood of suggestions on one hand and an attempt to rule with an iron hand on the other are the natural results of this peculiar psychological condition. Individuals have suffered in thousands and thousands of cases great personal and financial losses and men and women all over the world are impatient with each other. The agitator is having his inning because of the peculiar situation and the would-be lawmaker his day. The situation in Canada and the unrest in Great Britain are marked illustrations of the frame of mind in which society, collectively and individually, finds itself. There are strikes and rumors of strikes and if anyone refuses to do what some one else wants him to do the disposition is to get out a jimmy of some kind and make the recalcitrant person come across.

The situation requires exceeding care and great wisdom on the part of those in authority and while there is need of firmness there is also necessity for consideration. It will be the better part of good judgment to drive with a loose rein. We have more rules now and more laws than can be enforced, and in our judgment too much law and too much tinkering with the rights of others is to some extent

the cause of the prevailing unrest.—*Manufacturers' News,* June 5, 1919.

The devil loves nothing better than the intolerance of reformers, and dreads nothing so much as their charity and patience.—Lowell.

PATIENT AND PHYSICIAN

"It soon will become evident to anyone who looks at the matter at all thoughtfully that a physician stands in much the same relation to his patient that a builder does to his employer. Few would be so foolish as to ask a builder to construct a house for them and then either refuse to give him true information about the foundation upon which he was to build or, later, make misleading and at times erroneous, if not false, replies to questions which related to the perfecting of the construction. Nor would they, when the building was three-fourths completed, try to see whether it could stand all the strain that would be expected of it when finished. It would, indeed, be foolish if, during the night, they should knock down a number of bricks from the walls while the builder was not there or injure the property in any of a hundred ways that could be suggested. Some of these may seem, possibly, to have little bearing upon the relation of physician and patient; but, let us see.

"When a patient consults a physician, the physician supposes that the patient has put himself entirely in his hands, to be guided in the matter of his health by the physician's knowledge and skill, whatever they may be. They enter, as it were, into a partnership, which has as its aim the recovery of the patient's health. The physician should bring expert knowledge and the patient willingness and ability to carry out his physician's orders. In any business, perfect frankness and honesty must exist between the partners. Any patient who does not tell his past or who, by his misstatements, leads him to believe that something is the case which is not is, certainly, giving the physician false information about the foundation on which he hopes to upbuild his health. Such false information may mislead the physician, but, works harm only to the patient."

The foregoing was copied from Lawrason Brown's "Rules for Recovery from Tuberculosis", the third edition of which valuable little book is reviewed in the book-department of this issue of CLINICAL MEDICINE. The simile selected by Doctor Brown is so exceedingly apt and the argument is carried out so well that nothing remains to be said. We only can acknowledge our indebtedness to the author for a ripping good editorial.

Purposes, like eggs, unless they be hatched into action, will run into rottenness.—Samuel Smiles.

DISPENSING AT NIGHT—AND IN DAYTIME

In its issue for July 5, *The Lancet* refers to a recent inquest at which it was proved that an insured person, who had received a physician's prescription at 8 o'clock in the evening, had been unable to obtain the medicine until the following day, because the druggists available would not dispense after the hour named. In the opinion of the medical man who had written the prescription, the life of the patient might have been saved if he could have obtained the medicine at once. He said that similar cases were happening every day.

It seems that, in England, "druggists' shops" are closed early in the evening and that druggists are not compelled to dispense medicines after closing-time, even in cases of urgency.

Of course, we realize that conditions are quite different in this country, inasmuch as drugstores keep open long after 8 o'clock in the evening; still, we, ourselves, have met with great difficulty, in cases of extreme urgency, after eleven or after midnight, in securing much-needed remedies that we did not happen to have with us.

The occurrence in question but emphasizes the wisdom of the custom, prevailing widely in our country, of physicians carrying emergency-cases supplied with such remedies as possibly may be required in urgency-cases. Leaving aside the propriety of establishing night-service in certain drugstores, not too far apart, we once more would emphasize the importance of physicians being themselves provided with all necessary remedies, so as to be independent of drugstores, at least at night-time. We have here a potent argument against the attempt, that is being made at the present time in several state legislatures, of prohibiting the dispensing of drugs by practicing physicians.

Leading Articles

Hereditary Syphilis and Miopragia

By DOCTOR HUTINEL, Paris, France

Professor at the Medical Faculty of the University of Paris.

EDITORIAL COMMENT.—Professor Hutinel, who is a noted student of syphilography, presents here a discussion of the far-reaching results of syphilis, as they affect more particularly the descendants of luetics, that will aid the reader materially in arriving at a better understanding of many difficult problems with which he is confronted in his everyday practice.

CERTAIN organs of the body are especially vulnerable. They react or are altered in conditions under which, in other subjects of the same age, they would not present either lesions or functional disturbances. For this morbid susceptibility, Potain proposed the term "miopragia".[1] Our predecessors expressed the same idea when they spoke of "weak spots" and of *"loci minoris resistentiæ"*.

Miopragia Exemplified

To what must be attributed this paradoxical dimunition of tissue-resistance from which the suffering entailed is out of all proportion to the cause for it?

The causes are manifold and it may not be without interest to examine into them. Sometimes this diminished resistance arises from congenital malformations, but, more often, from an acquired lesion that has left traces behind. Whether serious or slight, such a lesion may have resulted from some traumatism; usually it has been produced by an infection or toxicosis, either acute or chronic.

Professor Hutinel

Among the chronic infections that are likely to impress their mark upon the organs of children, there is one that is particularly interesting and which, in truth, exceeds all the others in importance. I refer to hereditary syphilis.

The Action of Syphilis on the Fetal and Infantile Organism

During the final period of intrauterine life and during the weeks that follow birth, the infection with the treponema exhibits the characteristics of a true septicemia, the same as the acquired syphilis of the secondary period. It is then singularly diffuse and generalized. It affects the majority of the organs and tissues, but shows a marked predilection for certain organs, in which it provokes more or less serious alterations or remains latent and unrecognized. Its localization varies according to the period of infancy.

At the end of the fetal life, the liver, the kidneys, and the lungs are the organs that

[1] Diminished functional activity. From Greek *meion*, less, and *prassein*, to do.

are most commonly affected, but, the lesions manifested differ from those that are seen later. The liver, for instance, is not as yet sclerotic. It is large, purple-colored, congested, pervaded by small round cells that form strands or cell-groups along the vessels in the portal spaces and in the intercellular tissue. In the kidneys, one finds the same embryonal cells arranged in the form of a cuff or in groups around the arterial vessels that separate the medullary from the cortical substance, and in the vicinity of the glomeruli. In the lungs, there likewise are found interstitial infiltrations and perivascular and peribronchial lesions or even gummas that interfere with their expansion and which favor the occurrence of bronchopneumonic foci, of white pneumonias or of bronchial dilatation.

After birth, the skin is the seat of numerous forms of lesions, some of them appearing early but being infrequent, such as pemphigus; others are more slow of development, notably the erythematous, papulous, erosive, ulcerative, and even gummatous syphilides; while the mucous membranes do not remain intact.

Soon the liver, becoming sclerotic, turns a slate-color, while upon its surface are seen grains of Gubler's spots; that is, small miliary gummas. Already, a subperiosteal thickening on certain bones takes place. Then, in places, the bone-marrow exhibits a gelatinous yellowish or rose-colored appearance, and its alterations sometimes eventuate in a separation of the epiphyses. Then the nerve-centers become involved and, still later, one finds in the endocrine glands—the thyroid, pituitary, hypophysis and adrenal glands—lesions the importance of which will not escape the observer. All these alterations become more or less pronounced or, less often, tend to disappear. But, the manifestations through which they reveal their presence are essentially variable.

Vascular and perivascular, at first, they generally are interstitial and constantly tend toward becoming sclerotic. If the parenchymatous elements are more or less altered, this, ordinarily, is a secondary phase.

The pathologic process is irregularly distributed. It follows that, at certain points, the nutrition of the tissues is retarded or arrested and that frequently their development takes place in an asymmetric and irregular manner.

Is it, then, to be wondered at that the organs developed under these conditions are not normal? Badly nourished, sclerotic in places, more or less modified in their elements, disturbed in their evolution, dystrophic, even though they may appear to be healthy, they function imperfectly. Moreover, if an infection supervenes, they will react in a peculiar manner.

When an eruption occurs on the skin and there exists a cicatrix, it is here that vasodilatation occurs at its maximum, that macules and pustules break out in groups and become confluent. Things do not take place differently within the tissues. It is those parts that are injured early that react preferably.

Such is miopragia. Anatomically, it consists not only in a defective circulation and interstitial or parenchymatous lesions, but, also, in a diminished vitality and resistance of tissues that predispose the latter to retain pathogenic germs or react to the influence of ordinary or of specific infections and to recurrences of the original infection which was incompletely eradicated.

The more highly differentiated an organ is, the more readily disturbances in it will leave serious and lasting traces. If the influence that such an organ exerts upon the nutrition is considerable, the alterations in it can not fail to modify the growth, development, and maturing of other tissues; they, also, are at the basis of dystrophic troubles that occupy so great a place in the clinical history of hereditary syphilis.

Organs Considered Individually

Let us now rapidly pass in review the principal organs of the body. We will divide them into two groups. In the first group, I include the nerve-centers, the respiratory organs, the liver, and the kidneys; in the second, the endocrine glands and the bony tissues, the associated action and relations of which can not fail to attract attention.

It will be easy to see, from this presentation, how hereditary syphilis favors the appearance of lesions or of dystrophies that, at first, seem to be absolutely independent of each other; how it modifies the development of pathologic processes by

turning them in the direction of sclerosis, and how it gives an appearance of family-resemblance that is readily recognized.

The Nerve-Centers

Take, first of all, the nerve-centers. The vascular lesions that are found at the source of most manifestations of hereditary syphilis can cause the appearance here of the numerous diverse affections observed in various stages of their development. There are meningitic affections of the brain that may be either superficial or deepseated, or sclerosis, either limited or extensive; and all these lesions, general or local, but, always complex, may appear in association and conjoined.

The result is, if the patients survive, that there are seen certain morbid types around which there are ranged intermediary lesions. I will mention only the syndrome of Little, the diplegias, hemiplegias, monoplegias, microcephalia, encephalic dystrophy, diffuse or localized, sclerosis, to mention only a few. I shall not insist upon these, since, as a matter of fact, the organ not only is in a condition of lessened resistance, but, it is definitely at a disadvantage.

Hidden Types of Degeneration

However, aside from these clearly characteristic types, there are encountered cases less pronounced, or atypical, that are less evident, less well-defined, that often do not manifest themselves until later. These, though, can be recognized by the more or less marked retardation of psychic development, by bizarre behavior, by stigmas of degeneration, which cause the subjects to be, not so much patients as, rather, abnormals, and whose condition always is liable to become aggravated. While these cases still can be recognized, they are more difficult to classify.

Lastly, there are extant a large number of cases that remain latent and unrecognized up to the moment when a serious accident, such as a convulsive seizure or a meningeal manifestation, shows how unstable has been the subject's cerebral equilibrium. The clinical examination, however, gives only a doubtful answer.

It is futile to attempt to analyze the cerebral functioning of these subjects; for, they are too young to make answer or to describe their feelings or thoughts, while it is impossible to determine exactly their intelligence. The parents will assert that it is still sound. Nevertheless, it is very limited and imperfect, with many a hiatus. But, why this diminished functional ability? Must it be attributed to an imperfect circulation, to an irregular or asymmetric development of the different portions of the nerve-centers, to lesions that our means of investigation can not as yet make evident? Certainly, some of these things are true, and it is this condition that constitutes miopragia.

Responsibility of Hereditary Syphilis

Is hereditary syphilis ever responsible for the occurrence of the multitude of mental troubles the names for which change so frequently and do not sufficiently indicate their origin? They are attributed to a neuropathic heredity, the influence of which undoubtedly is enormous, I readily admit; still, it is not the only one. Why should these mental anomalies be so completely separated from lesions of the nerve-centers?

As To Spasmophilia

The disturbances of the cerebral equilibrium once more are encountered in the study of convulsions.

A child suffering from an encephalopathy (cerebral lesion) that is clinically recognizable often has convulsions. One hardly wonders at this, it being almost the rule in cases of this sort. But, certain subjects that seem to be normal and even in good condition likewise can be afflicted in this manner.

If it is a question of a transitory and generalized convulsion of bulbar origin, and which "explodes" in the course of an accidental infection or intoxication, but is not repeated, it is necessary to investigate whether there is present an exaggerated muscular irritability as there is in tetany and in the tetanic states. In these cases, the storm often passes without leaving any traces. However, if, without adequate reason, the convulsions are repeated at longer or shorter intervals and without premonitory warning; if they vary in character and severity; if they are partial or asymmetric: must not one then think of an abnormal condition of the nerve-centers?

This condition of inferiority can very well be produced by a slight trouble in the circulation or in the development of the brain, by a lesion that is either discerni-

ible or latent, of infectious origin or congenital; still, in seven cases out of ten, if I can trust my observations, it is produced by hereditary syphilis.

Syphilitic Taint the Cause of Congenital Spasmophilia

It is this syphilitic taint that, in all these cases, must be held responsible for the stigmas or reactions; and the physician, by proper treatment, can triumph, if he discovers the cause. If, as Professor Marie says, children's convulsions often are the prelude of adult epilepsy, then is not one justified in concluding that many epileptics are, as a matter of fact, unrecognized syphilitics?

When the nerve-centers are thus modified they seem particularly liable to become infected. I have studied for a long time the "meningeal reactions" that take place in the course of chronic cerebral affections. The "explosions" generally occur when there is an accidental infection, either an ordinary one or, clearly differentiated, except when they are not due to a revival of the specific infection. Their appearance in these conditions does not surprise anybody; however, they also show themselves in subjects apparently healthy, yet, whose brains, nevertheless have been sensitized by hereditary syphilis.

Syphilitic Meningitis

The reactions that are classed with syphilitic meningitis are very dissimilar. Some of them (and these are the most numerous and the earliest) hardly manifest themselves except by the passage of a few lymphocytes into the cephalospinal fluid. Others may be very grave. In the first months of life, the meningitic symptoms generally are very mild and barely recognizable. The lesions are too slight to lead to death; nevertheless, if they do not destroy the brain they easily can lessen and impair the individual's highest function. However insignificant and submerged they may be, the meningeal lesion, which Ravaut has described as being encountered in syphilitic nurslings, may leave traces and give rise to those affections that formerly were called parasyphilitic.

In older children, one witnesses sometimes a recurrence of these lesions more or less threatening. Then, more often, it is a question of a meningoencephalic reaction rather than of true meningitis; for, the specific alterations caused by the treponema are the more localized and th less diffused the older the children ar These reactions, which ordinarily occu when there is some accidental infectio are similar to those that are seen in oth acute meningitides, while sometimes th are mistaken for tuberculous meningitis.

However, the predominance of moto disturbances—convulsions, paralysis, tr mors—which indicate that the attack h been cortical rather than central; also tl chemical and cytologic characteristics the cephalospinal fluid and especially tl evolution of the malady may disperse doul A patient dies of a "tuberculous" meni gitis, while usually recovering from "syphilitic" meningitis. That is the esse tial point. It never is necessary to be haste about making an unfavorable pro nosis, and, in difficult cases, even in t absence of definite reactions or stigmas, is advisable, at all events to institute sp cific treatment.

Instead of meningitis, one sometimes o serves, in analogous conditions, mening hemorrhage or actual encephalitis, the o gin of which often is unknown and t history of which is but imperfectly su plied.

Is Chorea of Syphilitic Origin?

That leads me to say a few words ab chorea. The increasing tendency has be to consider this malady a manifestation f a mild and curable acute encephalitis. I r fifty years, its relationship to rheumat m has been understood. We know that, n forty percent of the cases, it appe s either before or after a rheumatic att k and that it frequently is complicated w h endocarditis and pericarditis; just as in e case of acute articular rheumatism. He e its nature seemed definitely establishe

Milian astonished the medical world y affirming its syphilitic origin, but pediatr ts protested energetically against an as r tion that seemed to them at least pa doxical.

As for myself, I do not believe tat chorea has its origin in syphilis. Stil it must be admitted that it is particul ly frequent in heredosyphilitic child n. When the treponema infection is local d in the nervous centers, it makes the lat r more vulnerable and thus predisposes th m to react under the influence of ordin ry or of specific irritation. However, i is

not the exclusive cause of chorea, although it modifies the condition in its manifestations and duration.

If one is confronted by a grave or obstinate case of chorea, if there are present paralysis, abnormal modification of the reflexes, trophic disturbances or neuritis, it is well to think of a specific substratum. The action of the arsenical remedies frequently confirms this suspician.

Is it necessary to speak of certain affections of the sensory organs that come on insidiously and the cause of which is not always clearly evident? How many lesions of the choroid, of the retina, the iris, the crystalline lens or of the cornea must be imputed to hereditary syphilis? What shall we say of certain forms of deafmutism? Of ozena? Of the saddle-nose? And of other affections?

Involvement of the Lungs

Now, let us glance at the respiratory apparatus. We are acquainted with the perivascular and interstitial lesions encountered in the lungs of some syphilitic newborn and which lead to the development of gummas, of white pneumonia or of bronchial dilatation. On the other hand, the history of specific lesions in the respiratory organs of the larger children still is very obscure. It consists, mainly, in the recounting of certain observations, few in number, variable in their nature and frequently difficult to interpret. However, we have a truly remarkable collection of facts that have certain traits in common—at least a relationship evident to those that are willing to look for it.

The feature that characterizes this fact especially is, the predominance of sclerosis. Does not this term, sclerosis, evoke surprise when we are dealing with children whose reactions are active and free, instead of being slow and insidious and like those of the aged? However, such a process becomes plain after a special study of the course of nutrition when observed in connection with an infection of slow evolution, such as hereditary syphilis.

In syphilitic infants, pulmonary sclerosis sometimes is accompanied by bronchial dilatation. But, aside from the characteristic dilatation, the specific origin of which is universally admitted, one encounters, at times, true tuberculous cavities. But, such cavities are rare in very young children, although a certain number of cases have been reported. That, though, does not alter the fact that their formation during the first year of life is something unusual.

Very well. In the majority of cases that I have been able to study in the "Enfants Assistés," these cavities were discovered especially in syphilitic subjects. Hence, one has the right to suppose either that the infection with the treponema had opened the door to the bacilli, or, that it had modified the progress of the tuberculous process and had directed it in the sense of sclerosis.

I have published several articles upon the bronchial dilatations that are observed in larger children. These lesions, fairly frequent between the ages of two and twelve years, differ notably from the bronchiectasies of the newborn and even from those of old people. They do not approach the nature of the sinuous cavities nor even of the bronchiectasies like those which Tripier has described as they are seen in old persons. These are small dilatations, occasioned, it seems, by a diminution of the resistance of the bronchial walls.

They owe their clinical interest to the fact that they simulate serious pulmonary or pleural lesions and especially tuberculous cavities. After a severe attack of bronchopneumonia of long duration, one observes pleurisies followed by extensive adhesions, and they are encountered, especially, in syphilitic subjects. Milhet published, in 1916, an article on this subject and his conclusions have been generally accepted. In half the cases, heredosyphilis can be demonstrated. But, tuberculosis easily engrafts itself upon the lungs that are thus modified in their structure.

It has occurred to me several times in recent years, when finding myself in the presence of children in whom, after serofibrinous pleurisies, the pleura had been traversed by membranes, or adhesions, while thoracic deformity or curvature of the spinal column had formed, that I would seek the cause of these gross newformations. Most often, I obtained a positive Wassermann reaction. The same obtained in certain bronchopneumonias, also in some lobar pneumonias, in which resolution took place very slowly.

As to Periviscerites

This leads me to speak of the cases in which multiple lesions of the pericar-

dium, of the pleuras, and of the peritoneum have combined and constitute real perivisceritis. I have elsewhere called attention to an ensemble of lesions and of symptoms where there exists an increase of volume and passive congestion, and a peculiar cirrhosis of the liver, while, at the same time, there is a tuberculous adhesion of the pericardium. To this affection, I have given the name of cardiotuberculous cirrhosis. As a matter of fact, it is a question, not alone of a pericardial adhesion, for, in certain exceptional cases, the heart may be free in its cavity, except for an inferior mediastinitis existing around the heart and interfering considerably with the circulation in the inferior vena cava and the portal vein. The fibrous thickening is greatest and often originates in the mediastinum; from there, it spreads and involves the two pleuras and the subdiaphragmatic peritoneum. However, it also may start from the pleuras and involve the pericardium and heart secondarily.

As a rule, the tuberculosis is the principal factor in this privisceritis. Sometimes, however, it is absent, and then it is a question of syphilitic conditions. In more than one-half of the cases, the subjects whom I have observed in the last ten years were simultaneously tuberculous and syphilitic. This association, which explains the predominance of sclerotic lesions, is met with in adults, as well as in children.

The Liver

Let us now proceed to consider the liver, profiting by the ideas that have guided us in the consideration of the nerve-centers and respiratory organs.

The hepatic lesions are of so great importance in the newborn that one well may be surprised at the almost insignificant position accorded them in the pathology of the elder children. If Hudelo, in 1890, did cite about fifty cases of delayed hepatic heredosyphilis, Devic and Froment denied the majority of his alleged facts, accepting only very few of them. Does not this seeming paradox find an explanation, if one will remember that, for the liver, as for the kidneys and the lungs, those affections in which syphilis was concerned, except as a contributive cause never have been fully taken into account?

The lesions which develop late in the liver of heredosyphilitic children generally are of cirrhotic nature. They present themselves under three principal forms, namely:

1. The sclerogummatous form. The most-nearly typical and the most common, and the specific nature of which is not denied.

2. The large, congested, and sclerotic liver surrounded by thick adhesions that form in the course of a chronic mediastinitis, with pericardial adhesion. In these cases, there always is the passive congestion of the liver; this suffices to explain the increased size of this organ.

But, is the tuberculosis the only cause of hepatic sclerosis? What shall we say about those cases, in which a tuberculous infection does not exist and where, nevertheless, the cirrhotic and peritoneal lesions assume a remarkable development? Why should the liver behave differently from the other organs?

I believe that the role of the syphilis noted in one-half of the cases, while not the only factor, is not a negligible one, and I am in possession of observations in which the characteristics of the cirrhosis and the results of the treatment do not admit of any doubt.

3. Now, there are the large green livers belonging to the type of the hypertrophic cirrhosis of Hanot, with chronic icterus and enlarged spleen. In these, the sclerosis, instead of the blood stasis, having prepared the ground and determined its progress, seems to have followed the course of the infection of the biliary passages. I have observed several of these facts and have called to mind that Hanot and his pupils had often shown the presence of syphilis in the history of patients afflicted with biliary cirrhosis.

The hepatic gland may become infected through several routes. Is it, then, illogical to admit that the lesions may assume different appearance, according to the mode of the invasion and the localization of the infective agent? In children, alcoholism is rare; very naturally, therefore the presence of cirrhosis causes one to think of a chronic infection such as tuberculosis or syphilis, either singly or in association. But, it must be remembered that, at the age of childhood, syphilis tends more to sclerosis than does tuberculosis.

One often encounters, in children, nephritis, both acute and chronic, the origin

of which it is difficult to ascertain. In such cases, it is customary to assert that one is dealing with nephritis of unknown origin. But, why do renal lesions, which ordinarily heal, occur so easily in young people, and, in certain cases, assume an appearance that causes them to resemble those of adults or of aged people? This is without a doubt, because they are influenced, if not produced, by chronic infections.

Nephritis of Syphilitic Origin

If these cases of nephritis sometimes are tuberculous in character, they, more often, seem to be dependent upon hereditary syphilis. They then present themselves under several forms.

The most common ones follow a subacute course, but, they usually are first recognized on the occasion of an acute attack. More often, one does not know the mode and the time of their beginning and, most likely, they are attributed to some unimportant cause; however, the injury suffered by the kidneys is far from being slight or temporary; healing is slow and often imperfect, even though the renal permeability is not always profoundly modified. After apparent recovery, the albuminuria often reappears upon the slightest provocation and the duration of the disease is uncertain.

The other forms are produced as a consequence of accidental and sometimes trifling infections, in the form of acute nephritis, with anasarca. They do not differ from the latter in any way, except by their slower development.

Others, finally, are essentially chronic. In general, they are characterized, not only by abundant albuminuria but, eventually, by threatening signs of renal insufficiency. After alternating remissions and exacerbations, they slowly lead to uremia.

Some forms, however, are altogether chronic. They are discovered by accident and persist for many years without giving rise to alarming symptoms, even though the percentage of albumin always is high.

Most of these cases of nephritis make their appearance under the influence only of slight infections. Hereditary syphilis must not be considered as their sole cause. However, the taint does make the kidneys more vulnerable and facilitates their becoming involved; moreover, it modifies the development of the lesions and, by influencing them in the direction of sclerosis, it contributes to causing them to become chronic.

In all these cases, one is struck by the disproportion existing between the importance of albuminuria and the relative benignity of the functional disturbances. The arterial hypertension is moderate. The circulatory troubles and the diminished renal permeability are but little increased. Altogether, the lesion seem to be of little significance. Also, the urinary symptoms usually develop but slowly. Intravenous injections of "914" [neosavarsan] often have given me good results.

The Endocrine Glands

The organs of which I have just spoken are of highest importance. There are others whose function, possibly less-well-known, are no less interesting. These are the endocrine glands, a study of which is likely to throw a vivid light upon the pathogenesis of dystrophies caused by hereditary syphilis.

The thyroid, the adrenals, and the pituitary glands, frequently are damaged in heredosyphilitics. Sometimes their changes are recognizable to the naked eye. More often, these changes are discovered only by a histologic examination. They are expressed, during life, by the appearance of dystrophies or of functional disturbances that can be more or less easily interpreted. They are sufficiently frequent that, in the case of a myxedema, of a hypophysial or an adrenal syndrome, and especially in case of the pluriglandular syndrome, one necessarily, is led to look for stigmas and reactions of syphilis. One realizes, without trouble, that a septicemic infection attacking the organism from the first stages of its development and affecting the majority of the tissues, will, less than others, spare organs as sensitive as are these glands. Frequently they are damaged simultaneously, but, there subsists between them such a remarkable cooperation that an alteration of one of them reacts almost disastrously upon the others.

The dystrophies occasioned by the functional troubles of the vascular blood-glands, while presenting known types, are markedly varied and dissimilar; nevertheless, they may be associated in manifestions that are

directly produced by the specific infection of certain organs. It is not a rare occurrence, for example, to encounter myxedema in children suffering from clearly characterized brain troubles [encephalopathy]. In consequence, one sometimes meets such a complexity of symptoms that it is not always easy to attribute to each organ the part played by it in the pathogenesis of the disorder.

It is not less true that the alterations of the thyroid, the pituitary, and the adrenal glands—to mention only the most important ones of the endocrine bodies—explain, in the simplest and most logical manner, a large number of facts that have been clearly observed by so great as clinician as was Fournier. He has seen that hereditary syphilis produced among given children either dwarfs or giants, obese or emaciated subjects, and physicians have all confirmed the absolute accuracy of his assertions.

Very well. In these cases is not it almost always the functional insufficiency of one or several endocrine glands that permits us to explain in a satisfactory manner each one of these dystrophies? Moreover, the results secured by means of opotherapeutic treatment whether or not combined with specific medication frequently show the correctness of this conception.

How Inherited Syphilis Modifies Endocrine Functioning

Syphilis acts upon these organs in two ways: either it modifies them directly as, for instance, when the local action of the treponema gives rise to the occurrence of sclerotic lesions; or, on the other hand, it exercises upon them a mediate and indirect influence through the organs which it has altered and the functioning of which it has disturbed.

This influence manifests itself in a most conspicuous manner when the affected organ is one of the regulators of nutrition. But, aside from the endocrine glands, which must be accorded the first place, do not the liver, the spleen, kidneys, central nervous system, lungs, the bone-marrow, and so on, likewise act upon the energy, the development of the tissues, and the growth of the individual? Are not all organs more or less closely united? There is, therefore, absolute reason for dividing the manifestations of hereditary syphilis into disorders of an infectious nature and into dystrophic disturbances.

The first of this order, those truly specific in their anatomical reactions, are attributable to the direct effect of the treponema or its poisons. We are quite familiar with this. We also are familiar with the vascular, perivascular and interstitial lesions; likewise with the scleroses, the gummas, the perostoses, and other disorders connected with this cause.

The disorders of the second class, that is to say, the dystrophies, are entirely different. They are the common result of a specific lesion that has disturbed the function of an important organ, notably that of an endocrine gland. These are sufficiently frequent to warrant us to attribute to hereditary syphilis a prime role in giving rise to degeneration in infants.

The Male Climacteric, and Criminality

The Possible Value of the Endocrine Secretions and Sex-gland Implantation as a Corrective

By G. FRANK LYDSTON, M. D., D. C. L., Chicago, Illinois
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THE relations between the climacteric to neuroses and, incidentally, to immorality and crime in the female is very obvious and familiar to every neurologist, especially as associated with insanity and hysteria. It requires nothing more than the mere mention here, that the climacteric makes manifest latent degeneracy in women. Statistics show that the proportion of women that begin a life of crime or immorality at or about middle life is larger than that of men at the same period.

The possibility of a critical "neurotic" period in the life of the male—what may

be termed a psychic climacteric—and comparable to the universally recognized climacteric of the female, has suggested itself to a few modern writers. However, in its possible relations to crime and moral offenses, it has received but little, if any, attention at the hands of scientific investigators. It is noticeable that many men become morally perverted at about the mid-period of life. This is especially true in America, where life is so strenuous that a successful man at, or even before, middle life is like a pugilist that has won a great battle, but, is so beaten up that, for him, life holds no further victories.

The successful American business or professional man often is a profound neurasthenic at thirty-five, while, at forty or forty-five years of age, he not infrequently is a physical and mental wreck. He may, like the apple of Sodom, be fair to look upon, but, the oil is well nigh out of his lamp of life. The damaged arteries, heart, and kidneys tell the tale. In addition, he is fighting against a natural handicap common to all men, namely, a change in his nervous system corresponding to the menopause in women, this heightening his susceptibility to disease and reducing his efficiency, both mental and physical. This alteration does not always show as a physiosexual change, but, very frequently is psychosexual. It may not manifest itself in psychosexual aberration, but, in moral degeneracy in general. Wo to him to whom temptation comes while such changes are occurring in his physical and mental organization! Honor, duty, love of family, all the elements that go to make up his conscience are likely to be sacrificed on the altar of his hyperesthetic ego.

That most physiologists will hold an adverse view, is probable; nevertheless, the records of criminals, the divorce-courts, and the revelations of the consulting-room bring to light many things that might lead one to the conclusion that science sometimes is lame and blind in the study of the causes of perverted psychology.

I once had occasion to refer, in a discussion, to the foregoing point in the etiology of crime, and, with the view of supporting my position, investigated the histories of all of the men of previously high social and business standing committed to Joliet penitentiary during the past four or five years, and whose names appeared in the report of the State's Attorney's office. These men were sentenced for defalcation, misappropriation of money, breaches of trust, and so on. None of them had had a previous criminal record. All were respected citizens. One, a banker, had behind him a record of philanthropy; I know of many kind acts that he had performed, entailing upon him monetary losses or expenditure. Another, I always considered a neuropath. He was a hard drinker in his young adult age, but, reformed, joined the church, and preached temperance and religion—almost fanatically. He had no criminal record, although, as a member of the city council, he was considered one of the "Gray Wolves". He always was deemed a "sharp" man in a trade, who never was likely to get the "short end of the deal". One of these men I knew to be, previously, an honest, industrious, and most exemplary man. He was dragged into crime by his bank superior, who found him, at the age of fifty, pliable material.

It will be observed that the youngest man among these convicts was thirty-three, and the next youngest, thirty-seven. One was thirty-eight, and the other eight were above forty years of age; only three, however, being above fifty, the oldest one being only fifty-five. I submit the cases and ages without further comment. To the discerning mind, they tell their own story:

E. S. D., age when received at the Joliet penitentiary, 57.

C. W. S., age when received at the Joliet penitentiary, 55.

W. S. Y., age when received at the Joliet penitentiary, 55.

R. B., age when received at the Joliet penitentiary, 50.

F. L., age when received at the Joliet penitentiary, 49.

T. H. S., age when received at the Joliet penitentiary, 46.

W. O. M., age when received at the Joliet penitentiary, 46.

M. P. K., age when received at the Joliet penitentiary, 44.

C. E. G., age when received at the Joliet penitentiary, 38.

G. L. M., age when received at the Joliet penitentiary, 37.

G. B., age when received at the Joliet penitentiary, 33.

The frequency with which men past middle life begin, for the first time to abuse their families and plunge into sexual debauchery is a matter of common observation. Surely, there must underlie a phys-

ical cause for such conduct on the part of hitherto kind, loving, and indulgent fathers and exemplary husbands. That a psychic climacteric has much to do with these cases, I am fully convinced. Alcoholism begun at middle life is susceptible of a similar explanation in many instances, and, once begun, bears a most intimate relation to immoral and criminal acts.

That a toxemia of some kind underlies the aberrations incidental to the male climacteric, I am firmly convinced. What more logical theory than that of a perversion of the quality and quantity of the endocrine secretions? I am of the opinion that the point of departure is, the testicular cells of Leydig, with an aberration of the sex-hormone. The vicious circle once established, all of the endocrine secretions probably play their part.

I am convinced that, in my method of sex-gland implantation, we have a therapeutic resource that one day will be generally recognized as invaluable in the disturbances incidental to the climacteric in both sexes. That it is corrective of presenile and, within reasonable limits, even of senile conditions, no longer is an open question in my mind.

The Recognition and Treatment of "Climacteric Disorder" in the Male

By GEORGE H. CANDLER, M. D., Chicago, Illinois

SOME Cynic has made the remark that "man is born, takes an unconscionable time maturing, mates, reproduces his kind, and dies—sometimes when he should, but, quite often long after he has become superfluous."

Brief and bitter as is this statement, its absolute truth cannot be denied. The question is, just when *should* a man die; that is to say, when does he begin to become "superfluous"? If we accept the natural law (and, as we do not really live under "natural" conditions, we hardly can do so), the individual who has survived, mated and reproduced should be willing to "pass on" just as soon as he loses his teeth, his procreative ability and the general capacity to "hold his own" in the struggle for existence

As a matter of fact, though, the modern civilized man often is of more use to his family group and to the world in general after he has passed the zenith of life; for, in these days, it is knowledge added to a reasonable degree of energy that counts, not, mere brute strength and physical endurance. Most of our captains of industry have artificial teeth and a very large number of them probably are quite incapable of reproducing their kind, yet, they continue to direct affairs and add daily to that unearned increment that, sooner or later, will be distributed among their dependents and prevent, for a time at least, the wolf from howling at their doors. It need not be considered here whether or no this ability to continue to amass after an ample sufficiency has been secured is desirable; some otherwise rational individuals will affirm that most captains of industry are "superfluous" while not a few even go so far as to say that many of the older ones could be chloroformed, or even hanged, with advantage to the community at large.

However, this certainly cannot be said of those elderly or old men who efficiently serve their fellows. The great war, just come to an end, has proven conclusively that, while for physical effort, or shock purposes, youth still is to the fore, it takes the mature brain to direct and control events.

About "Old Age"

Here, these questions arise: at just what period of life does the brain attain its full maturity; how long does this condition last, and how may we know when the inevitable degeneration begins? Is it to be assumed that the great statesman, general, author, artist or financier of sixty, seventy or even seventy-five has been able to materially delay or even evade the organic

changes that are known to come with the years? Or, has he by some means retained his intellectual at the expense of his physical powers? Here we find ourselves trenching upon a dangerous subject; namely, the correlation of the psychic and the physical. Very many intellectual giants have been physical nonentities; on the other hand, men of extreme vigor during early and middle life have done their best intellectual work later, when broken down physically. Yet, we are led to believe that the period of decline in man usually is first evidenced by mental changes, coinciding, as a rule, with a failure of the sexual function.

Nascher states: "The process of senescence is progressive, not retrogressive, and not a single tissue reverts to an earlier type. . . . If we accept the theory of tissue-cell evolution as the fundamental cause of aging, we must seek the fundamental difference between childhood and old age in the cells at the two periods of life. . . . There is but one rational assumption by which we can explain the progressive changes in the properties of cells and the tissues which they form. It is, that in the constant waste and repair of tissue the newer cells differ from the earlier ones, that in advanced life none of the early cells are left (except brain cells), that the aged individual is, in fact, an entirely different individual from the one who was formed from the ancestors of the late cells. The only connecting link between the early and the senile organism is the brain, as it is believed that brain cells do not regenerate themselves, that the old cells were all present at birth though changed in structure and perhaps in composition in the process of progression and senescence. There still is the same personality, modified by intelligence, education and the acquisition and suppression of traits. Continuity of mental activity is maintained by retention of sentience in the original cells instead of transmission from generation to generation of cells as in other tissues. Like the old vessel which has been repeatedly repaired until not a splinter of the original timbers is left, the individuality and the name remain."

When Does the Climacteric Occur?

Nascher is inclined to place the "climacteric" (that period when profound changes occur both physically and mentally) in the male somewhere about the latter part of the seventh or eight decade. He says, "this is the transitional period between old age and senility and corresponds to the critical period that occurs during the period of development called puberty and the critical period called the menopause in the female. I have called this critical period in the period of decline the senile climacteric."

That the man in the seventh or eighth decade undergoes changes of a pronounced type is true, but, I cannot admit that Nascher is correct in terming *this period* the climacteric or in considering it as parallel to the menopause in women. It seems more rational to apply the term to those varied but very distinct changes that occur much earlier in life—say, between the forty-fifth and fifty-fifth years. Many years' careful observation has led me to the conclusion that somewhere about this time of life there begins a transitional period of the greatest importance, which unfortunately is not generally recognized by the average practician. The more highly constituted and intellectually active the individual, the more certain are early evidences of retrogression to occur. It is true that every man does not complain of failing sexual powers during this period, indeed, in several cases that have come under my observation, there was a decided heightening of libido and potency. But, this very change in a man hitherto comparatively sexually quiescent and "living decently with one wife" indicates some disturbance of the internal secretions—a dyshormony—and, especially if accompanied by loss of weight, vague feelings of unrest or loss of the capacity to concentrate, it almost invariably means the beginning of the climacteric proper. In other words, that man has reached the apex of life and is beginning to descend the hill.

Physical Changes Attending Climacteric

Sclerotic changes are occurring and there is no longer a perfect balance of the internal secretions; there is, rather, hyperactivity of one gland and inactivity of another. The gonads, thyroid and adrenals, in this connection, demand much closer study; but the spleen and pancreas are equally important factors. In a most interesting article entitled, "The Hormone Equation of the

Psychoses," which appeared in *The Medical Record,* of November 11, 1916, Carpenter, of California, relates some rather startling experiences with patients receiving preparations of the spleen. In several instances, acute mania or marked mental disturbances followed the administration of the spleen alone, but, no such conditions presented if ovarian or mammary substance, or both, were added. Moreover, in several cases, where typical dementia followed the administration of the spleen, prompt recovery took place under full dosage of the sex glands. It is impossible to give here even a brief résumé of the conclusions arrived at by Carpenter. Be it said that, after one or two experiences with spleen extract, he noted that all his patients were deficient in sexual power—one patient was nearing the climacteric—and, therefore, he deduced that many mental alienations of a functional character may be due to a hypersecretion of the spleen and hyposecretion of the sex glands, hence, that the administration of the sex glands in functional cases ought to restore the hormone balance, and, thus normal mentality. Combined with the spleen, whenever administered, the sex gland should also prevent the *production* of mental symptoms. That the later conclusion, at least, was correct, he certainly seems to have demonstrated.

Very many other observations might be quoted to prove that dyshormony either causes or progresses *pari passu* with the apparent physical and mental changes of middle life. If this explanation is logical, and it appears to be so, it should not be a difficult matter to control the pathological processes, thus adding materially to the span of man's active life, to say nothing of the sense of well-being he would enjoy during his stay. Heretofore, unfortunately, physicians have given this matter little or no thought, and not many years ago the average practician would have smiled in a superior manner, had one mentioned the "male climacteric." He would have said: "Simply growing old, my boy, simply growing old," and let the unfortunate patient grow old with a verity and die long before his allotted time. It is, of course, true that "the allotted time" varies materially with the individual and it is quite beyond the province of the average doctor to say "this seemingly normal man will live long and this one will not," but, I am reasonably sure that, if certain symptoms be recognized at the right time, not only can various ordinarily fatal organic diseases be headed off but years of happy, healthful activity can be made to replace an otherwise certain period of absolute or semiinvalidism. Here the vital questions arise, (1) just how are we to recognize these cases; (2) what shall we look for to definitely prove our diagnosis; and (3) having proved it, how shall we proceed to treat the patient?

The Recognition of the Climacteric

The immediate recognition of climacteric disorder is not a simple matter by any means and, yet, a thorough examination of the patient, his blood, urine and perhaps stomach contents, will throw a flood of light upon what may have proven a very dark subjective symptom-complex. By being thorough, we shall at least be able to recognize and exclude an existing diabetes, nephritis, arteriosclerosis and certain organic diseases of the heart and liver. But, even here we must remember that the liver and kidneys are closely allied with the thyroid and that, when this gland degenerates, the other organs are more or less seriously affected. Ergo, at this particular period of life at least, if we correct the dyshormony we are quite likely to disperse a typical disease syndrome.

In nearly all these cases, we find evidences of autotoxemia—usually of intestinal origin—and more or less albumin in the morning urine. The blood pressure may be high, normal or subnormal, yet, strangely enough, each patient complains of almost identical distresses.

At this point it may not be out of place to quote Eppinger and Falsa (cited by W. S. Gleason, *Med Rec.*, Nov. 18, 1916) who divide the endocrinous glands into two groups according to the action of their internal secretions:

"1. The 'accelerator' group, including the suprarenals, or adrenals, and the thyroid gland. All three increase protein metabolism. The adrenals cause mobilization of carbohydrates in the liver. The thyroid causes increased fat absorption.

"2. To the 'inhibitory' group belong the pancreas and the parathyroids; both retard protein metabolism and restrain sugar mobilization in the liver. According to this grouping and action, increased sugar production depends upon influences that stimu-

late the accelerator secretion of the suprarenals or lessen the restraining of the pancreatic secretions.

"The gonads, or sexual glands, also have an internal secretion which acts upon the metabolism of the body to stimulate it in each sex in a specific manner. It has been shown that the interrelationship of the internal secretion and the nervous system seems to indicate a dominance of the nervous system over the internal secretions. The question is raised how far the body, mental development, and character of the individual are influenced by the condition of the endocrinous glands. The supposition in the light of present investigation is, that the influence is an important one. Any disturbance of this perfectly controlled cycle brings lowered nutrition, diminished metabolism, and incipient degenerative processes."

Here we have an explanation of *why* the middle-aged individual becomes physically and mentally "uneasy" and may present symptoms so contradictory and various that the busy practician mutters something about "neurasthenia"—a term that may mean much but, usually, signifies nothing—and suggests a sea voyage. Sometimes such a change, with its added intake of oxygen, change of food, scene and thought, of itself suffices to bring about a cure, but, alas! too often, though the patient returns improved, he sooner or later breaks down and goes prematurely the way of all flesh. To produce real and lasting results, the individual must be studied carefully and continuously for a year or two. If he is to "come back" thoroughly, he must during that time be dieted, medicated, exercised and rested as the necessities of his particular case demand. Never must it be forgotten that some fortunate individuals pass through this danger period without obvious discomfort; others again may be able to keep up full speed and then die almost instantly while undergoing some slight additional emotional, mental or physical strain.

Two Cases Illustrating Treatment

Perhaps, we may be better able to appreciate climacteric disorders if we consider one or two fairly typical cases. V. L., a short, stout man of forty-eight, was brought to me by his brother, who, as he expressed it, had "lost patience with him." He looked healthy but had absolutely no ambition, dreaded to go to the store and meet people; could not remember prices or even peoples' names and immediately upon his arrival at home in the evening began to detail to his wife (who "fussed" over him) the many old and some new pains and aches of the day. His appetite was capricious, his bowels sometimes loose and again constipated; his tongue coated and the pulse soft and irregular. Respiration was shallow and the man yawned frequently. He complained bitterly of a "fullness in the head" and dizziness on rising. He could not sleep for hours after retiring and during this wakeful period thought of every unpleasant thing that had occurred, or might occur, in his life. He was particularly afraid of becoming a helpless pauper and with tears in his eyes explained that only some fifteen thousand dollars in the bank stood between him and the poorhouse. As he was then drawing a salary of $6,000 per annum and his brother had a business doing over $1,000,000 annually, this fear at least seemed to be groundless.

Questioned as to sexual matters, he averred that he had been almost abnormally virtuous not only up to but during his married life, but that for the past year he found himself thinking lascivious thoughts, reading erotic books and generally "having a desire for attractive and very young women." His moral control was still strong enough to enable him to withstand such temptation and, as his wife was somewhat frigid, he, like St. Anthony, continued to suffer in silence. He did not masturbate now nor had he done so to any extent during earlier years. He believed that his potency was now beginning to decline. Pains in the tibiae, abdominal uneasiness, not amounting to pain, and periods of profuse localized perspiration particularly distressed him. His back ached often, in the sacral region, his feet were cold and always damp and he felt exhausted upon the slightest effort. Indeed, to rise, shave and dress was enough to tire him out. He was peevish to his relatives and dependents, but nervous and almost tongue-tied in the presence of his business associates and customers. Continually he thought "what can they think of me; how totally unfit I am to transact business!"—which was true.

The patient's past history was excellent: he came of a long-lived German stock, had

all his life been active and spent a good deal of time hunting, fishing and shooting at the traps. He had had no real sorrows or reverses. Even before the physical examination proved the entire absence of any recognizable organic disease, I had made the diagnosis of "climacteric disorder" and privately assured the brother (who, by the way, was fifty-five and "sound as a bell") that the man would "come back" if given sufficient time and temporary freedom from business cares. His wife was informed that this was one of the times when absence would "make the heart grow fonder" and urged to let her husband go on a prolonged trip into the north woods without making him week-end visits or even writing "lovely letters from home" too often.

For one whole month prior to his departure, I saw this patient daily and endeavored to direct even his thoughts. He rose the moment he awoke, took a cool bath followed by an alcohol rub and, before eating, evacuated his bowel. Mild laxatives and hepatic stimulants were given with mineral oil night and morning. His diet was carefully thought out and consisted chiefly of cereals, fruits, well-cooked vegetables, fish, eggs and cream cheese. Occasionally, these last items must be omitted. Buttermilk, water and milk and Vichy were his beverages. Sumbul, scutellaria and the valerianates were employed to secure sedation and, for one hour before each meal absolute rest in the recumbent position was enjoined. After eating, mild exercise was taken and each afternoon a masseur went over him thoroughly. Continually he was informed that he was gaining and, as a matter of fact, he was improving. Even before he was ready to start for the woods, he asked if he might not go down to the store for a while each day, but, he was not permitted to do so. When he went north, he was told to eat slowly, rise from the table hungry, maintain thorough elimination and exercise a little more strenuously each day. A little rowing, a good deal of hiking and all the fishing he cared for were recommended and he was told that the axe and cross-cut saw might have attractions later. The guide who had him in charge knew just what this kind of man needed and his wife gave him the food he required. As a result, the patient came back to Chicago fifteen pounds heavier and fit as a fiddle. Moreover, he has remained fit. He still reports occasionally and every month has a specimen of his urine examined. He says his potency is not diminished but now he is able "to think about one thing at a time"

Case 2: A. T., a spare, intellectual business man, aged fifty-three. Came several thousand miles to consult me because he felt sure that he was in danger of sudden death. He "just felt that he was slowly but surely wearing out." As usual, he also confided the fact that his sexual power was practically nil; that his wife interested him not at all, and other females very little. Moreover, he felt quite sure he could not interest them if he tried. Some doctor had directed his attention to his prostate and he thought that "local treatments" would perhaps do good. He, too, had "dizzy spells," cold feet, vague but really distressing pains in the back and epigastric region, and flatulence annoyed him considerably. He felt his heart beat, even heard it when his head was on the pillow at night. He also had most unpleasant dreams. He was living on brown bread, poached eggs, spinach, baked apples and cream, with an occasional lamb chop. He walked just as little as he could and had a chauffeur to drive him to and fro. He had begun to go to church regularly and even to read religious works, all with a view to preparing himself for the impending change. His sight was failing (naturally) and he was less interested in his business; in fact, he was worried by the routine.

Examination revealed a very slightly enlarged prostate, normal heart, somewhat high blood pressure, slightly enlarged liver and an impacted colon. There was a decided gastroptosis and the external genitalia were somewhat shrunken. The urine contained large quantities of indican and skatol, some albumin and many calcium-oxalate crystals. The urea output was low and the acidity high. The blood was virtually normal although the color index was low. Here again, a diagnosis of "climacteric disorder" (not, "sexual neurasthenia") was made and the patient was assured that, if he would really follow instructions and at the same time realize that he *could* get well, he would do so. After a week's thorough elimination and dieting, he was fitted with proper glasses and an abdominal belt; a light pair of Indian clubs was given him, together with a chart outlining

roughly his daily life. He was to eat, exercise, rest and work a little at certain definite times and each night retire only because he was ready to do so, and then only after taking a dry rub. Internally, at this stage, he received lecithin, nuclein and the phosphates of iron, calcium and manganese; a full dose of pepsin, with a small dose of iron, after meals; and morning, noon and night, an active culture of the bacillus bulgaricus.

He was instructed not to think of his prostate, not to watch his stools or the color of his urine, but to go serenely along, weigh every ten days and send a specimen of his twenty-four-hour output of urine every two weeks. Improvement, at first, was slow, though evident, but, after six weeks, he became so much better that he came all the way back to Chicago to find out if it was really safe for him to feel so active. Again, he was gone over thoroughly and assured that he was going to feel that way for a good many years, provided he "lived right." He went home, took a long trip through the National Park in his car (driving a good deal of the way himself) and returned again to his domicile with an entirely new grip upon things. Gradually he took up his business again and within a year was planning to erect another plant. Just a few weeks ago, I received a letter from him, assuring me that he "ate three square meals a day, slept like a kid, and could ride and play golf with any of the young fellows."

Non-Success of Treatment

Every case, of course, does not proceed as satisfactorily; (1) because we see some of the patients only after serious damage has been done, or we fail despite every endeavor to grasp the real *fons et origo mali*. (2) Because we are not able for various reasons to oversee and direct the patients for a sufficient length of time and, left alone, amid the old surroundings, they "slump." (3) Because, unfortunately, the human element and the Mendelian law can not be overcome even by the most precise therapy and certain individuals decay early despite every effort to preserve them. Not a few really seem to take a morbid interest in their decadence and become unhappy if they cannot discuss their symptoms with some fellow hypochondriac. (4) Because some men cannot understand that sexual rest means *rest*, or that a bowel movement each day does not mean a clean intestine. Moreover, these individuals rebel—no matter how much they may be worth—if they are told to relinquish limousine, servants and the club and get them back to nature for a year. I am quite certain that I saved one man's reason, if not his life, by telling him to buy a little farm and live as nearly as possible on what he produced thereon. Three years after having made the change, he was a regular "husky" and, at fifty-seven, he married (he had before led the ordinary well-to-do bachelor existence, than which none is more trying) a twenty-six year old woman, who seems to have filled his life very satisfactorily. He will probably live to be a patriarch.

Even much older men may be "repaired and rejuvenated" but one must be careful here not to trench upon the province of the geriatrist. It is possible, as I have said, to slow down the pendulum, but, one cannot turn back the hands of the time clock.

Points to Remember

The salient points to remember are that the highly civilized man, especially he who works and lives at high tension, reaches the apex of life—his "climacteric"—somewhere around the fifties; occasionally, earlier. At this time, he may merely begin to "slow down" or may present a chain of symptoms that would lead one to suppose he was beyond hope. And let it be ever remembered, these pains, distresses and tired feelings really do exist; in fact, it is a serious question in my mind if any of the definite acute diseases bring in their train half as much real suffering. Further, the individual (unless intelligently treated) endures increasing misery for months and finally becomes despondent or hopeless, sometimes even to the point of "ending it all." The few autopsies thus afforded have failed to reveal any very definite organic lesions. Those who do not die become burdens to themselves and others or finally enter some sanitarium or public institution for the care of the insane. There they may yet linger for many years, mere moving bodies, hopeless, loveless and aimless, waiting, yet ever dreading, the coming of the messenger who will set them free.

Another point to bear in mind is that, at about this period of life, certain diseases—to some of which a predisposition

may exist—first make themselves manifest. It will not do to treat a man who has a marked interstitial nephritis, cardiac lesion, diabetes, or cancer, for "climacteric disorder," though, unquestionably, the therapeutic procedures adopted in the latter cases would prove more or less beneficial in the others. Neither must we overlook the fact that the typical climacteric disorder may exist and *mask* some grave malady. That is to say, we may fail to find any evidence of its existence on our first examinations and feel surprised later when the patient instead of improving becomes seriously ill or even "passes on" with disconcerting suddenness. It is not easy to make the relatives of such a one believe that we knew what we were doing. Where there is an element of doubt, it always is well to explain matters to some friend of the patient and so be prepared for any eventuality.

While it is obviously impossible intelligently to advance a definite line of medication in these cases, I would urge the extreme undesirability of administering such drugs as strychnine, the opiates or even accepted soporifics. Sedation, not stimulation, is practically always required and, where insomnia has been a feature, it usually disappears under elimination, regulation of the circulation, proper feeding and massage. If intractable, a full dose of a reliable preparation of passiflora usually will produce sleep, though now and again we may find ourselves compelled to administer barbital or some similar drug. Digestants, intestinal antiseptics, bitter tonics and phosphorus in some acceptable form, are essential, as are saline laxatives, mineral oil and various glandular products. Indeed, I believe that in this, as in other fields, hormone therapy is destined to play the most important role.

It is unfortunately impossible to even touch here upon many important phases of the subject; and the radiologist, the dental surgeon, the oculist and the G-U man will probably find nothing advanced that is of interest. Undoubtedly, in given cases, some or even all of these gentlemen can render signal service, but, after all, the recognition and effective treatment of climacteric disorder" rests now and must always be with the internist.

In Memory of Theodore Roosevelt

By WILLIAM BOYCE THOMPSON

President of the Roosevelt Memorial Association, 1 Madison Avenue, New York

TO few men, has it been given to perform such service as Theodore Roosevelt rendered. In war and in peace, he loomed mightily in the councils of this nation and, up to the time of his death, he labored to effect in our democracy those ideals for which he stood as champion, and which everywhere are recognized as eternal verities essential to true progress.

Service to mankind at times demands a sword; he knew; and he never flinched from such combat. His ideal of real service is better understood when we read this statement of his:

"In the long fight for righteousness, the watchword for all of us is, Spend and be spent. It is of little matter whether any one man fails or succeeds; but, the cause shall not fail: It is the cause of mankind."

How freely he spent his prodigious strength of brain and brawn! His fight for righteousness was lifelong and, in his closing years, driven, as ever, by his high moral purpose, he pioneered for preparedness. Undoubtedly, he used up his force of vitality many years before he otherwise would have departed this life. But, he succeeded in his purpose and, for the ultimate victory, America well may allot Theodore Roosevelt a just portion of her gratitude.

Americans should unite in tribute to his memory in the campaign of the Roosevelt Memorial Association, during the week of October 20-27, for a fund with which to perpetuate his ideals. These memorials will be a public park in Oyster Bay—Mr. Roosevelt's home-town—and a great monument

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in Washington, the scene of many years of his labors in behalf of the nation. Men and women in all sections of the country should support this non-partisan movement by their contributions; for, by so doing, they will help to preserve, as a stimulus for future generations of young Americans, Roosevelt's ideal of service.

Years before he had achieved the full glory of his fame, Theodore Roosevelt, at the unveiling of the Sherman statue in Washington, in 1903, said:

"The living can best show their respect for the memory of the great dead, by the way in which they take to heart and act upon the lessons taught by the lives that made these dead men great."

A memorial will serve to remind us all of the value of living in accord with high ideals of this great American.

The perspective of the years alone can give a correct appraisal of a man's worth to his generation. Even at the date of this writing, however, some idea of the tremendous influence for good that Theodore Roosevelt exerted upon the life of his country is beginning to take shape in the national consciousness, and there is no doubt but that future historians will accord to him a niche as one of the outstanding figures of American history.

Unflinching in his demand for good citizenship, unwavering in his insistence upon purity in every relationship, Theodore Roosevelt preached and practiced a high type of morality. He served the highest good, and did not hesitate to upset tradition when the objective was destined to benefit mankind.

"Genius is a fine thing for a nation, but, character is a still finer thing, and, though beauty is good, strength is an even greater good," he once said.

Laboring always to maintain this conception of character in his own life and in national affairs, he made no concessions to circumstances and kept his standards unsullied. He considered every burning question, he chose his side in accordance with his conscience, and, having chosen, he fought consistently to uphold what he considered right.

More than any other man, Theodore Roosevelt typified, to his countrymen and to the world outside America, the full meaning of American citizenship. During the trying days before the entrance of the United States into the war, he labored valiantly to arouse his country to a sense of its duty in that world-crisis and preached incessantly the doctrine of preparedness; to which, eventually, the nation assented. It is not amiss, at this time, to requote here part of a eulogy of the former president, spoken by another former president, William Howard Taft, who said:

"He sent his four boys forth to war with the pride of a Roman tribune. Through his father's tears for Quentin's death, there shone the stern joy that a son of his had been given to die the death he would himself have sought on the field of battle in his country's cause.

"Theodore Roosevelt's example of real sacrifice was of inestimable value to our country, in this war. The nation has lost the most commanding, the most original, the most interesting and the most brilliant personality in public life since Lincoln.

Here is appraisal from an authoritative source, illustrative of the esteem in which all Americans, of high or low degree, held the man whose career, from San Juan Hill to the White House, is familiar history to every schoolboy.

It is interesting, in view of this commendable movement, to remember that Roosevelt was always a man of practicable ideals, which never partook of the merely theoretical. He demanded results—and got them. Perpetuating his ideals, therefore, will preserve, for the inspiration of the generations of young Americans to come, something demonstrable in ordinary life, and of genuine value to mankind.

If he spent much time driving home his doctrines to other people, it was because he firmly believed in them; for, he lived in accordance with what he advised other persons to take for guidance. He abhorred persons that advised one way and went the other.

"Remember that the preaching does not count if it is not backed up by practice," he said, in an address at Oyster Bay a few years after his Spanish War triumphs. "There is no good in your preaching to your boys to be brave, if you, yourself, run away."

His ideal of service for the young man he defined well, in plain everyday phraseology, when he said:

"I want to see every man able to hold his own with the strong, and also ashamed

to oppress the weak. I want to see each young fellow able to do a man's work in the world, and of a type that will not permit imposition to be practiced upon him. I want to see him too strong of spirit to submit to wrong, and, on the other hand, ashamed to do wrong to others. I want to see each man able to hold his own in the rough work of actual life outside, and, also, when he is at home, a good man, unselfish in dealing with wife, mother or children."

These are the tenets which he adopted for his career, and the principles which he sought to have all his countrymen adopt. Practicing what he preached, he each day proved their efficacy; he was the exponent of the "square deal," and men everywhere looked up to him as an unflinching champion of righteousness.

"Sometimes you can develop character by the direct inculcation of moral precept; a good deal more often you can not," he said. "You develop it less by precept than by practice."

To preserve for posterity such conceptions of service and life in general, is, to benefit the American public as a whole and individually. United support should be given to the campaign for that end.

After Thirty Years—XVIII

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

Questions Answered—Cold Air and Pneumonia

THESE articles frequently cause physicians to write to me regarding some of the matters discussed by me. Others ask for advice; while still others voice opinions at variance from my own. In the following I wish to reply to some of the questions that were submitted to me recently.

A. S. W. writes: In your article on measles, in the June issue of CLINICAL MEDICINE, you seem to blame fresh air for the occurrence of pneumonia as a complication in that disease. Is it not an established fact that the cold-air treatment of pneumonia is a great improvement upon previous methods of treatment? And, if cold air is good for treating pneumonia, why should it not be good for preventing it? Is not the old idea, that a person can take cold from being exposed to a draft, an exploded fallacy?

Reply

I should say in reply to your first and second questions that it is very far from being an established fact that the cold-air treatment is an improvement upon previous methods. As to your third question, the assertion so glibly made by some of our would-be leaders in medical thought, that "no one ever took cold by sitting in a draft," is a falsehood that has cost many lives. I am ready to give to fresh air all the importance that it deserves (and that is a very great deal), but, I am not willing to throw to the winds the experience of the human race through all the ages.

My article on measles speaks for itself; but, to answer your first question more fully, I will quote from Major M. C. Head, chief of medical service in the base hospital at Camp Wheeler, Georgia, during the influenza-epidemic of last year. In describing the experience of the staff of that hospital in the treatment of pneumonia, first by the open-air method, and, later, by what he calls the "no chilling" method, Doctor Head says:

"The pneumonia-epidemic began October 5 and continued well into January, coincident with the influenza-epidemic. Up to November 24, all windows and doors in the wards were kept open day and night, regardless of weather conditions: no screens or blankets were hung before the doors or windows; soldiers with pneumonia were encouraged to keep their heads close to the windows, so that they could breathe in the cold air sweeping in from the outside; and if a soldier complained of a draft, he was told that it was good for him, that the fresh air would make him well. No cotton jackets or chest-protectors were permitted,

but, patients were kept well supplied with blankets. Ward-fires were allowed to go out at night. On cold, damp days, the wards were always chilly, of course. Under such conditions, 966 patients with pneumonia were treated, with 135 deaths (13.9 percent).

"November 24 a radical change of treatment was made. Windows and doors were kept closed; pneumonia-patients on outside porches were moved into the wards; a cotton jacket was applied to every soldier with pneumonia; surgeons and attendants were cautioned to handle patients in such a way as to prevent all exposure or chilling; fires were never allowed to go out and the wards were kept free from a feeling of chill (except on very cold days when it was impossible to do so); special nurses were provided for the desperately sick; bathing was discouraged, except for cleanliness. Under these conditions 435 pneumonia-patients were treated, with 14 deaths (3.2 per cent.)"

Doctor Head frankly admits that, in the first weeks of an epidemic, mortality rates are higher than later, but, even allowing for this, the foregoing figures are eloquent. He concludes: "Any clinician who has walked through long wards of soldiers desperately sick with pneumonia, every man lying with his head and chest next to an open window through which, on cold days and nights, cold and often damp winds are blowing, who has seen these men with pinched blue faces and cold hands and feet and has heard them again and again request that the doors and windows be closed to keep them from feeling chilly, can not help but be convinced that this form of management for patients sick with an acute disease, such as pneumonia, is unwise."

I should call it criminal. My sympathy goes out to the poor fellows that constituted the difference between the 13.9 and the 3.2 per cent. Most of them might have been saved. Doctor Head is to be congratulated upon his courage in making the experiment and publishing the results. It takes courage to take a stand against the fads that come up in modern medicine. The man that does so is sure to be bombarded with such epithets as "old fogy", even if nothing worse happens to him.

As to Pessaries

J. H. asks: "I have a patient with prolapsus uteri. I have tried to support it with a pessary, but, she complains of discomfort when wearing it, and I find the vagina tense—its walls tightly stretched. What can you suggest? Am I wrong in using a pessary?"

Reply

You do not give details enough to enable one to give an absolutely definite answer. For instance, much depends upon whether the woman is married or single or whether she has had children; and, if so, whether she was lacerated, and where; also, you do not say what pessary you are using.

Still, there are certain principles that apply in a general way and which may be of use to you. In the first place, a pessary should give comfort, not, discomfort; so, in this case, it either is too large or of wrong shape or wrongly placed. Secondly the most common mistake in fitting pessaries is, to use one too large. Try the smallest size that will stay in place.

Most doctors have an exaggerated idea of the amount of support a uterus needs. The object should not be to force the uterus up as far as possible, but, rather, to keep it from coming down too far. In placing a Hodge pessary, the broad rounded end should go up behind the cervix. It is a common experience to find it in front of the cervix. Another common mistake is, to place the pessary wrong side foremost. Then the top of it points backward toward the sacrum, instead of upward toward the abdomen, as it should. If you will hold a Hodge pessary in your hand as you read these directions, you will get my meaning. If there has been extensive laceration of the perineum, it may be necessary to repair it before any pessary will stay in place.

Those Reformers

M. J. C. writes: "In some of your 'Notes and Reflections,' you have criticized those whom you are pleased to call 'reformers.' Is it not true that most of the improvement in the condition of the working-classes is due to these same reformers who are accused of being so meddlesome?"

Reply

If by "improvement in the condition of the workers" you mean forcing wages up until milkwagon-drivers and streetcar-conductors get more money than do teachers, college-professors, and even many doctors,

I deny in the first place that it is an improvement, and, in the second place, that the socalled reformers deserve any credit for it. It simply makes the cost of living that much higher. And then, What? Presumably, another boost.

I do not sweepingly condemn all who are trying to bring about reforms and to better the condition of the human race. Nevertheless, it is undeniable that there are many self-appointed guardians of the public welfare whose zeal outruns their judgment. They are persistent troublemakers, however sincere and wellmeant their efforts may be. They stir up class-prejudices and class-hatreds, by encouraging the ignorant to think themselves downtrodden and oppressed, and they foster the idea that capital and wealth are the enemies of the masses. For example, just lately a wealthy woman, the sister of the president of a large manufacturing concern, published an open letter, warmly approving the action of some foreign employees of her brother's plant, when they had gone on strike without assigning any reason or complaining of any grievance, merely obeying the command of a self-appointed leader with an unpronounceable foreign name.

In looking back over a score of years, it is easy to recall many such reformers, men and women, who have posed as friends of the working-classes, but, whose utterances savor more of hatred than of love—hatred of those who, by thrift and industry, have acquired property and who refuse to have the management of their business dictated by irresponsible agitators. The kernel of the nut is this: *To foster the prejudices and hatreds of the workers is not doing them a kindness*, and that is what these reformers from well-to-do families are doing.

Mark Twain once remarked that it is a problem, what to do with them, as the law does not permit us to kill them, and, since they are not amenable to reason, nothing else seems adequate. They are traitors to their own class and might be compared to the bird that fouls its own nest or the swine that upsets the trough containing its food.

I know many very worthy reformers. They are quietly doing much good, without blare of trumpets. They do not set one class against another, nor do they pose as champions of the oppressed. They teach more by example than by extravagant language. There never was a time when their calm counsel and wholesome influence were more needed than now.

The medical profession has not escaped the evil influence of the teachings of these self-constituted reformers. They are insatiable seekers of notoriety, and they know that the public will eagerly swallow new theories that are startling and sensational. Sound teaching, based upon the experience of the past, is not nearly so attractive. The people love to marvel.

A Point in Grammar

C. B. writes: "I was much interested in your article in the May issue, elucidating some points in grammar, and should like to have your opinion on this sentence: "The attempt *will* certainly *be renewed*." A friend claims that the verb "will be renewed" should not be split by placing the adverb "certainly" between its parts, because a rule of grammar says that an adverb must not be placed between the auxiliary and the main verb. Is there such a rule? It seems to me that the sentence is stronger and smoother as it is.

Reply

You are quite right. There is a widespread belief that such a rule exists; however, so far as I know, it is not maintained by any recognized authority on English grammar. In settling such a point, three things must be considered: First, which sounds best? Second, what do the authorities say? Third, and most important, what is the usage of the best English writers? I agree with you that the sentence sounds best as it is. There is no better authority on correct usage today than Dr. J. C. Fernald, one of the editors of the "Standard Dictionary". He says that there is no such rule as the one alleged, and, if there were, it would be valueless, in the face of such passages as the following from the English classics:

From the King James version of the Bible:

"Of every tree of the garden thou *mayest* freely *eat*."

"Thou *shalt* surely *die*."

"He that *being* often *reproved* hardeneth his neck, *shall* suddenly *be destroyed*."

"Nothing common nor unclean *hath* at any time *entered* into my mouth."

From Shakespeare:

"While you *are* thus *employed*."

"'Tis beauty that *doth* oft *make* women proud."

"And he that throws not up his cap for joy
Shall for that fault *make* forfeit of his head."

From Addison's Spectator:

"But *having* already *touched* upon this last consideration, I *shall* here *take* notice"

From Macaulay:

"Our opinion of the moral character of this man *has* already *been* sufficiently *explained*."

"The Saxon camp at Pirna *was* in the meantime closely *invested*."

Doctor, get Fernald's "Expressive English." You will enjoy it.

2920 Warren Ave.

Sherlock Holmes Gets Busy

By MILES J. BREUER, M. D., Lincoln, Nebraska
1st Lieutenant, Medical Corps, U. S. Army.

EDITORIAL COMMENT.—The author of this interesting article desires us to emphasize the point that the entire story is fictian, pure and simple, the only foundation of fact being its setting. Nevertheless, the recital told so graphically opens up some remarkable vistas of speculation.

AS the music of retreat sounded from half a dozen bugles, the men in olive-drab poured out of the myriads of long, low wooden huts and scuttled through the mud, to stand in line as the flag was being lowered. Gloom was beginning to steal into the corners of the laboratory where Captain Barry and his sergeant were left alone by the departure of the personnel. The unpainted wooden walls, the chairs, tables, and shelves made of old boxes that had carried freight across the Atlantic, the glittering and intricate apparatus necessary in a hospital-laboratory, all spoke of that game we had played in France, when no effort or expense was spared, although spent only on essentials. The Captain stood looking at the endo-plates stacked on the end of the rough board table, a picture of astonished perplexity.

"Your work is correct, Sergeant," he said, "and there's going to be a racket. The Colonel only is waiting for the Laboratory's confirmation of the ward-surgeons' diagnoses, before calling an investigation."

"Do you think someone is to blame?" asked the Sergeant, putting away the microscope for the night.

"Now, look," said the Captain, whom war had uprooted from a professorship in a medical college, "you said that forty-one of the blood-cultures that you made from wards No. 12 and 14 are positively typhoidic. Do you realize that that is as much of a shock as though someone had dropped a bomb in the middle of the hospital? That is an epidemic. Typhoid-fever epidemics have no business in the Army, nowadays!"

"But—" objected the Sergeant, 'they occur among the civilian population—"

"Nevertheless, in the Army, universal vaccination and the control of sanitation have eliminated typhoid fever. Occasional cases, it is true, are met with; we, ourselves, have had a few at this Center, cases in which the men had been infected at the front and sent down here."

"Especially," continued the Captain as they locked the laboratory and walked away through the rain; "at a Base-Hospital Center as far back from the front as this one, with every facility for sanitation, there is no excuse for forty-one cases of typhoid fever. It points to gross neglect somewhere."

The Captain was correct about the investigation; the next morning, he was summoned to the Colonel's office. The Colonel's office was just like the rest, provided with only the most essential furniture and made of old lumber. There, three colonels, four majors ,and two captains, all medical officers, spent the forenoon probing into the disagreeable situation. Evidence was brought up that proved that all drinking-water had been chlorinated and its freedom from infection controlled by weekly

bacteriological examinations; that cooks and all those handling food were cleanly, free from disease, and inspected every day; that sewage was disposed of in such a manner that food contamination from it was impossible; that all men, including the patients suffering from the disease, presented records showing that they had been vaccinated against typhoid fever. The investigating board was unable to arrive at any explanation of how the epidemic might have arisen.

Yet, the next two days brought into the laboratory thirty-one more requests for blood-cultures in suspected typhoid-cases; and the report made three days afterward showed twenty of them positively typhoidic in character. These were from wards 17 and 19, two adjacent wards situated a hundred and fifty yards distant from those in which the original outbreak had occurred.

The Colonel paced back and forth in his office when the report was brought to him. His Center had been making a good record, and this would look somber for him when this report had reached the Chief-Surgeon's office. The epidemic was very severe, characteristic of the late part of an epidemic, when the bacteria have gained in virulence by repeated passage through the human body.

By the time the second report was out, four deaths had taken place in the first group of cases. The ambulance that was used as a hearse, backed up to the door of the Central Morgue often enough; with many sick and wounded from the front, deaths were inevitable. Still, as to the typhoid-cases, that was different. Captain Barry recognized only that they should not have occurred: that these dead men had been cheated out of life unfairly. So, when the bugle blew taps on the hill that afternoon and the sound of thrice-repeated volleys penetrated to the laboratory, he bent his head into his palms and remained sunk in thought.

A Good Nurse Stricken

Six days after the diagnoses had been confirmed on the first outbreak, a nurse died. She had been one of the first to be taken sick. She had been a cheerful girl, whose smile was known over the entire camp. Only the soldier that has come out of the hell of mud and blood and finds himself in the clean, warm haven of the hospital, with these deft and smiling angels (it seems years since you have seen an honest-to-God American girl!), so willing to do everything for his comfort, will understand the lump that came into the throats of so many in the Center, when they thought of her, small and pretty, bringing willing hands and a brave heart so many thousand miles across the sea—and now to be laid out on the hill, under one of the many long rows of crosses.

That afternoon, the world seemed a cheerless place; the sky was leaden and the air soggy over acres and acres of long, low, wooden shacks, whose unpainted sides and roofs glistened with that never-ceasing rain. The detachment-band played military music. The one hundred nurses of Base Hospital No. — marched behind the ambulance that bore the coffin, their reddened eyes betraying that which they endeavored to conceal by gripping their handkerchiefs tightly in their hands. They were followed by the officers in formation, and the detachment-men. They slopped through the mud, stood around the coffin, and bared their heads in the drizzle, as the pitiful little box, draped with a big flag, was lowered into the muddy hole.

The Staff Officers' mess was a silent affair that evening. Major Loft, the Chief of the Surgical Service, mentioned that one of the detachment-men of Base Hospital No. —, who had been taken down while looking after the typhoid-cases, had that afternoon been rushed to the operating-room because of a perforation. He had been operated upon at once, but, little hope was entertained for his life.

"I knew the boy's father well," said the Major, his voice hanging on as though he wanted to say more: but he remained silent.

"In twenty years of soldiering," said the Colonel, "I have never been confronted by a puzzle like this."

Getting on the Trail

"Barry," resumed the Colonel, after five minutes of silence, "they tell me you're something of a detective. I'd like to have you see what you can do."

"Detective?" exclaimed Captain Barry in surprise; "I never tried to be one."

"Never tried to be," explained Major Loft, an old colleague of the Captain's; "but, the best medicolegal man in his state. His word goes a long way in poison- and murder-cases. I wish I had his reputation as a consulting-diagnostician."

"Consulting—" mused the Colonel; "you know that Sherlock Holmes used to solve

mysteries without seeing either the scenes or the characters of the crime. Here you hardly have such a thing as a scene of the crime, and no kind of a clue to start with. It's a case for a consultant, to be solved in the armchair."

"And you think I can do that?" said Captain Barry.

"The Army wants every man to do all that he can," said the Colonel simply. The Captain considered awhile in silence.

"I'll report to you in the morning, sir!" he said.

The lights went out at ten. They were controlled by a man in khaki at a gasolin-engine in a wooden shack. But, long after that, a candle gleamed in Captain Barry's room. He scribbled notes on little cards.

At breakfast, he nodded his head in reply to the Colonel's inquiring glance.

"Before we start," said the Captain, as he and the Colonel seated themselves in the latter's office, "I should like to have the records of these men sent over from the ward," handing the Colonel six names on a slip.

"It is absolutely clear to me," began the Captain, "that this is a deliberate design on the part of someone to spread disease in this camp; the culprit must be a man who understands medical matters, but, whose resources for spreading mischief are limited That is all readily arrived at by elimination. The difficult thing is, how to go about finding him—"

"Wait, wait," interrupted the Colonel. "How do you know that it is intentional? I don't see it."

"I'll explain. A case of typhoid fever may be accounted for in three ways. First, it may be part of an epidemic. But, an epidemic cannot occur in the Army today, except by some gross lapse of sanitation or discipline; many years' experience with millions of men has proved that. Our investigation has demonstrated that there has been no such lapse in this camp. Epidemics consist of cases scattered throughout a community, occurring at intervals of time. Here we have two large groups of simultaneously appearing cases, localized in two widely separated spots.

"Second: a case may arise through some fault in sanitation. We can conceive that some man may have disobeyed orders and drunk water from a French well; one man may have slipped through without having been vaccinated; the careless handling of a preexisting typhoid-case, an undiscovered typhoid-carrier, a lapse in kitchen-discipline, the neglect to chlorinate water, any of these might cause an occasional case, or a few sporadic cases; but, not sixty-one cases.

"The prophylactic vaccination protects against an ordinary dose of infection such as will be encountered under ordinary conditions. There must, therefore, have been an overwhelming dose in the case of each of these patients, far greater than could be found in infected food or water, but, such as would be found in a pure laboratory-culture. Vaccinated persons are susceptible to a dose of such character. The infection in this instance must have been liberated on two occasions, in two localized spots, in a dosage more powerful than is conveyed under natural conditions. The fact that this army is fighting an enemy who scruples at no method of weakening us and whose tentacles reach everywhere turns all our thoughts into the same channels as to how this might have originated.

"It must have been someone whose resources are limited; who is in the camp or near it for other reasons, and who took advantage of an opportunity that came his way. Suppose he had been able to choose his method; there are diseases more readily spread, more certainly deadly, against which we have no prophylactic vaccination to protect us; cholera or typhus, for instance. However, the organisms of those diseases are not available in this vicinity, and cultivating them is impossible, except in a special laboratory. On the other hand, in our laboratory, we have available large quantities of typhoid-bacilli, which we use in agglutination-tests; and this is the only large laboratory within a hundred kilometers around.

"These cultures, as we have them in the laboratory, are not plainly labeled "typhoid." Yet, a person familiar with the work would recognize them in the agglutination-racks. That the culprit was a man who knew his ground well, is shown by the fact that he overcame another obstacle.

"To produce the disease, the germs must be swallowed. It is not probable that the culture was placed into food. To reach such a large number of cases, it would have been necessary to inoculate the food in the kitchen; yet, that would have scattered the cases all through the hospital, as the men from the different wards eat all mingled

together in the mess-hall; while food is distributed to bed-patients in trays from the kitchen. Treachery also would be difficult, because there is always a large number of people watching the food; there are fourteen cooks, and many orderlies and nurses always around.

"But, drinking-water is supplied to the wards in Lister-bags, one bag between each two wards. It would have been extremely easy to slip in the culture at night. However, the water is chlorinated and would kill the bacteria. Only a man who knows how, understands how simple it is to get rid of this chlorine—by dropping a little alkali hydroxide into the water.

Spotting the Culprit

"In casting about for a clue as to who did it, we are convinced that it must have been a person that had access to the laboratory; either someone belonging to the laboratory-personnel, or someone from the outside. Among the former, we have two classes of men. If it had been one of the skilled technicians intending to work mischief, he had means at his disposal by which he could have done it more easily and extensively; a cyanide in the water, for instance, would have killed everybody in the ward, not merely a small percentage. On first thought, to one familiar with the work, a laboratory offers a half-dozen means more deadly and rapid than typhoid-infection. The unskilled attendants could never have gone through the reasoning necessary to succeed in spreading these organisms; and, to them, typhoid-fever would be least likely to appeal; for, we have comparatively little of that, and deadlier things, such as diphtheria and meningitis, attract more attention in the laboratory. Besides, these unskilled men, not knowing how to handle them, are afraid of disease-germs. All the men in the laboratory are men whom I have known previous to the war, as this Unit was recruited from among the students of the Minnesota State University. So, it must be an outsider.

"The French women that do the scrubbing can be ruled out for the above reasons; they lack motive and intelligence. However, thirteen days ago, I requested a detail of convalescent patients to help wash test-tubes during the press of work with the diphtheria-epidemic. These are the men whose records I have requested, and which the orderly has now brought.

"You will note," observed the Captain, looking over the records, "that the ward-man has tried to give men fitted for the work, so far as he had them. The occupational blanks on the field-cards show that he has sent one medical student, one chemist, and one pharmacist. The medical student is Fred Walker, 356th Infantry, fracture of tibia by machine-gun bullet; now recovered; no tag-number; 89th division, which is from the middle West; but, he gives his birthplace as New York; remember, also, that, at the time the 89th division was formed the government was giving exemptions to medical students. Harry Sullivan, chemist, shell-shock. Charles Kirby, pharmacist, influenza — nothing further worthy of remark.

"I am wiring to the Central-Records Office at Bourges for full data on Fred Walker, tag-number, time and place of enlistment, and so forth. And I shall see these men and talk to them."

The Colonel had sat for fifteen minutes, listening, without moving or speaking.

"Looks reasonable," he finally spoke up when the Captain had concluded. A few moments later, the Captain was dodging trucks up the muddy street.

"What kind of a fellow is this Fred Walker?" he asked the wardmaster.

"Fred Walker?" said the wardmaster. He had seventy patients to remember. "Oh, yes, the Englishman. Rather quiet. Doesn't mix much with the boys. The Lieutenant is going to send him out with the next evacuation. There he is, now."

Walker was red-faced and light-haired. In reply to the Captain's questions, he spoke in a pronounced London dialect.

"What part of New York were you born in?" asked the Captain.

"I don't know much about New York, sir. I have always lived in England."

"Are your drafted or a volunteer?"

"Volunteer, sir."

"Where did you enlist?"

"New York, sir."

The Captain was under the impression that the 89th division was composed entirely of draft-troops; but, said nothing, as he was not sure.

Harry Sullivan was also interviewed. His eyes shifted, he turned pale when addressed; he hesitated, stammered, and trembled. The substance of his answers was straightforward, and contained nothing suspicious. His actions were readily explainable on the grounds that he was a shell-shock victim. Nothing of interest

was elicited from any of the other men. The Captain's mind dwelt continually on Walker. The next morning brought a reply-telegram from Bourges:

On the Wrong Track

"No record of any such man." The Captain sprang to his feet.

"There is a Red Cross worker in hut No. 8," he said to the Colonel, "who is a born and bred Englishwoman. I am not versed in the fine points of dialects. Can she be sent for?"

The Colonel nodded, and a little while later, a motorcycle with sidecar was splashing through the mud, bringing the Red Cross lady from her work in Recreation Hut No. 8.

"Here is someone whom you will be glad to see, Walker," said the Captain, presenting Miss Russell, "a real English lady." Walker seemed a trifle ill at ease, but, could talk about England as familiarly as though he were at home there. Back in the private office of the ward, a whispered conversation was held.

"No, not pure English," Miss Russell replied. "It seems a queer thing to say, but it sounds like a German inflection to me."

The Captain motioned to the orderly.

Slip out and send in an M. P.; and go to the laboratory and tell Private Haas to report to me here."

Private Haas had spent several years in Germany while his father was American consul there; he knew the language and customs. The Captain's little trick worked out smoothly. Walker was sitting with his head bent, apparently lost in thought. Haas slipped up behind him, unnoticed by him or any of the men that sat idly about. In a rough, peremptory voice, he shouted:

"*Achtung!*"

Some of the men turned their heads in surprise, some looked up sleepily. One, taking it for a joke, shouted: "Outside!" But, Walker jumped to his feet as if shot, and stiffened instantly into an attitude of attention. In a moment, he had realized his mistake, and looked wildly about him, breaking into a sickly smile, beads of perspiration breaking out on his face.

"All right, M. P. bring him along," said the Captain. The ward was hushed and motionless; a little stir arose as Walker was led out by the M. P.

In the Colonel's office, the M. P. pushed Walker roughly into a chair. The latter was limp and apparently thoroughly cowed. Captain Barry was a kindly person, the Colonel, however, was very grim and stern.

"Well, my fine bird," he said, "we've got you."

Walker made no attempt to put up a front.

"I'll confess, sir," he said weakly. "I was foolish to try to work it."

"Foolish is no name for it," said the Colonel, pressing a buzzer for a stenographer. "If you have anything to say, say it quick."

Walker seemed very willing. It was difficult to reconcile the weakness with which he spoke and acted, with his apparent unconcern in the face of the knowledge that he must, inevitably, soon stand before a firing-squad.

"My name is really Ferdinand Wacker, and I belonged to the 371st Infantry. Our officers told us that the Americans tortured and killed prisoners, and warned us not to surrender to them. I was shot in the leg at Belleau Wood, and, as I lay there in the night and the Americans passed over me, I knew I must fall into their hands. I had studied medicine in England; I spoke English well. I made up my story and exchanged clothes with a dead American near me; it was very painful with my broken leg. No one discovered me, until they played the trick on me this afternoon —I was thinking, and it sounded like a German officer. But, since I have seen how well German prisoners are treated by the Americans, I see that my artifice was needless. I should be just as well off as a prisoner—better—I have been much puzzled as to what I should do when I was sent again to the front to fight my own people." He stopped.

"Go on," said the Colonel sternly; "why do you stop?"

Wacker looked up astonished.

"Go on, sir? That is all, sir!"

"What about this little mess you've stirred up during the last two weeks?"

"I don't understand, sir. I have done nothing. I haven't been outside the ward I haven't spoken to anyone."

The Colonel and the Captain looked at each other.

"You are accused of having infected our drinking-water with typhoid-bacilli, and caused typhoid fever in sixty-one persons, and, so far, the death of six."

Wacker's eyes widened and his face became blank. He staggered and caught

himself against a table. His tongue was dry and his breath came fast.

"I didn't, sir. I swear. I know nothing about it."

"I thought you said you would confess everything," the Colonel said sharply.

"I have confessed all. That is all I have done. I have thought much during my stay in the hospital. I have been treated well and have observed how well the Americans treated my captured comrades—how could I do such a thing as you say? I must even admit that my eyes have been opened to many things about the German government which I did not see before. I was blind—surely, I could not have done that." he stared blankly and appealingly around, at the M. P. and at the stenographer.

The Colonel motioned to the waiting M. P.

"Take him over to your Captain with my compliments." He turned to Captain Barry inquiringly.

"My opinion is that we are on the wrong track," said Captain Barry.

"We'll hold him. If you don't think he did this, continue your search."

"I'll work on the same clue, among the men that were detailed from the ward to the laboratory. That still contains possibilities."

"You can have a Secret Service man in the ward. He will enter in regular manner, like a patient," the Colonel said. The Captain sat down and wrote out instructions for the Secret-Service man. Then he walked over to the laboratory.

"Lieutenant," he said to his assistant, "you are a recent graduate and informed on scientific details. If you wanted to get rid of the chlorine in chlorinated water, to make it possible for bacteria to live in it, how would you do it?"

"I don't think I can tell you, sir," the Lieutenant replied.

"How many doctors do you think would be able to answer that question?" the Captain pursued.

"Very few, I think. The man who would have that on the tip of his tongue would be a chemist."

"Exactly," said the Captain, "a chemist."

Affairs which demanded attention at the laboratory kept the Captain until four o'clock and prevented him from giving the typhoid-mystery further attention until that hour. Then he went again to the ward. Sullivan was the man that was down on the field-cards as a chemist.

"Have you ever done any bacteriological work?" the Captain asked him.

The man's eyes brightened.

"I was a medical student——" he stopped short and his expression changed. "They drafted me and ruined everything."

"You didn't report yourself as a medical student."

"They asked me what my occupation was. I was a chemist, and was studying medicine."

"Now," said the Captain, studying it over in his mind, "things seem to fit together. Yet, what could have been the motive if this man was the culprit? He looks and talks like a good American." He was sorting over the cards. "Here are two men from his company who came in with him. Orderly, send in Tucker and Bennet."

"Do you men know Sullivan?" he queried, as the two entered and stood at attention.

"Yes, sir," answered Tucker; "I have known him ever since we were both kids, We're from the same town."

"What does his father do?"

"He's a doctor and one of the finest men in town, liked and respected by everybody."

He dismissed the two men and sat there, more puzzled than ever. There was a knock on the door. "Come in." A man with a bandage behind his ear entered and saluted.

"Private Jennings has the wardmaster's permission to speak to the Captain."

"What is it?"

The man came close to the Captain and said in a low tone:

"I am the Secret Service man that was to report to you. This man Sullivan is a queer character. He came near starting a fight this noon; he jumped up and upset his neighbor's dinner on the floor, saying that the man had spit in his coffee. Last night, he got up at 2:30 o'clock and pulled all the covers off one of the patients and denounced him for having stolen his blankets. These accusations were not true, He is always accusing someone of mistreating him."

"Ah," said the Captain; "the light begins to break." He wrote a note for the orderly and left the ward.

That evening, he said to the Colonel, with an effort to conceal the note of exultation in his voice:

"Can you meet Major Parker and myself at 7 o'clock?"

The Colonel laid down his fork and looked at the Captain.

"You speak as though you've caught the spy."

"I don't know whether I can call it that. Still, I am confident that Major Parker will be able to prove to your satisfaction who did it, and why."

The Colonel was hardly able to finish his supper. The Captain would say no more. At seven, they were waiting in the Colonel's office. As soon as Major Parker appeared, Captain Barry observed the satisfied expression on his face.

The Culprit no Culprit

"You were correct, Captain," said the Major; "the man has hallucinations of persecution."

"Begin at the beginning," said the Colonel; "I don't know what you are talking about."

"It is a question of mental disease," said Captain Barry. "What did you name it, Major?"

"It is a typical case of dementia præcox," the Major replied.

"I suspected insanity," said the Captain, "as soon as he began to complain of the draft. This was confirmed by a report of his behavior in the ward. I requested the Major to examine him, because I don't know one form of insanity from another."

"There is no doubt but that he had this before he went into the Army," the Major said. "The mental strain of battle did not cause it, but, only set it off. The rough and ready diagnosis of the front-line doctor was shellshock.

"These victims, except in their final stages, do not appear 'crazy,' in the layman's sense of the term. They appear quite rational, except, perhaps, in some special direction. Many are quite clever. Unless there is some special reason for suspecting insanity and a special examination is made by a man trained in psychiatry; they are not recognized until they reach the final stages, which may be many years.

"This man has one of the characteristic symptoms; the subject thinks that he is being abused, and he suspects everyone of designs upon him. The draft seems to be the thing that operated most powerfully upon this man's weakened mind. It was the evil design of the Army and the government against him as an individual, a personal plot to ruin him. He admitted all this in the course of my examination, and a stenographer has taken it down. He is not conscious that he has committed a great crime. It was his way of defending himself.

"He had recognized the typhoid-cultures in the agglutination-tubes, when he was sent into the laboratory with the detail. He saw his opportunity for revenge upon the government. He slipped in when the bacteriological room was unoccupied and poured all the suspensions of the germs into a large stoppered test-tube. He also took some sodium hydroxide, to drop into the Lister-bag, to take up the chlorine, and then poured in the enormous quantity of pure culture of typhoid and paratyphoid germs. Five days later, when the same opportunity presented itself, he repeated the operation."

The Colonel rose.

"This is not a case for a military court," he said.

A Common-Sense Essay on Diet

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[*Continued from September issue, page 635.*]

Selection of Foods in Relation to Health

Some years ago, a mother came to me about her boy of thirteen who, she said, seemed to lack energy, was pale and thin and had no appetite. She was not particularly worried about him—in fact, would not have noticed that anything was the matter with him but for the criticisms of a grocer for whom the lad had gone to work during the school-vacation and who told her that her son had no life in him and wasn't worth his salt around the store. To her, he seemed about as usual. Growing boys, she said, were always likely to be thin and listless, and she was unable to see that her Will was much different from other children of his age. When, I said, the instant that I saw him, "Malnutrition!" she was inclined to feel indignant.

"Why," said she, "Will certainly gets enough to eat. I do not starve him."

Then I was obliged to explain, as every physician is so often compelled to do, that malnutrition may mean, not alone too little food, but, also too much, as well as food of a wrong kind or too monotonous. I then found that the lad virtually lived on steak, potatoes, tapioca pudding, floating islands, and coffee. He ate these things and drank coffee because he liked them, and his mother permitted him to have all he wanted of them, because she loved him so; never dreaming that his low physical condition was a direct result of a monotonous diet. And she was sure that he did not eat too much of these loved articles, for, he often quit the table leaving a portion of his meal uneaten! And, although I urged the value of a proper diet with all the eloquence at my command, I could not impress convincingly upon this woman the absolute necessity of varying that boy's feeding. It was incomprehensible to her that what one eats matters much, so long as he has enough of it. Today, that boy is a fretful invalid of nineteen, looking like an old man—thin to emaciation, nearly bald-headed, pain-racked, almost helpless. And, nothing in the world was the matter with him six years ago but, his daily diet. An easily effected change in the monotony of that would have assured him health and strength.

Although every practicing physician can not adduce an alarming number of cases as bad as this in his immediate vicinity, he can point to very many instances in which the effects of malnutrition are of the same kind, even if not extending to such an extreme; and I have selected this one as an illustration of the principles to be advocated here, because it accentuates a phase of domestic life that, in a greater or less degree, is present in all too many comfortable American homes—needlessly present and inevitably walking hand-in-hand with misery. This mother wished her son to take medicine. In her estimate, a mere change of food would not suffice. This was a grave and a typical mistake on her part. Not only could medicine not serve the purpose; a change of food would have done so. It was no more a case for medicine than it was for civil law.

Medicine, indeed, has its great uses, but, this was a matter of malnutrition, purely and simply; and, as an application of correct dietetic principles would have averted the ruin and made a man of that doomed lad, so today, in uncounted families scattered over our land, there are men and women and children innocently dosing themselves with nauseous prescriptions for the alleviation of some complaint that no medicine ever could relieve, but, which would respond either immediately or ultimately to some simple change of diet. For, monotony of food is as bad for the stomach as monotony of scenery is for the eye.

Many a housewife is wasting time and money, lingering along a perpetual series of splitting headaches, in the mistaken belief or hope that headache-powders will cure what only variety of diet will correct; many a tired man, many a growing boy or girl, many an elderly person is vainly taking medicine for a state of nervousness, debility, anemia, and so forth! when all that is needed for a sure, if sometimes slow, cure, is, a change in the succession of food-elements taken into the stomach and supplied thence to the blood and tissues.

The ordinary body in a state of good health, as I have said, requires for its proper upkeep about 2500 mils of water, 10 Grams of salt, 10 centigrams of iron, 50 to 100 Grams of proteid, 300 Grams of carbohydrate, besides such other ingredients as will inevitably be supplied by any common mixed diet. These the body must have in about the proportions named, else sickness of more or less severity must follow—a sickness that no medicine will heal, but, which a return to the proper proportions will quickly or gradually eradicate, provided it has not gone too far. Moreover, the foods containing these elements must not be eaten too rapidly, neither may they be taken to repletion. A stomach too suddenly filled, or filled too full is as deleteriously affected in these directions as is an empty one in that direction. As food hastily ingested does not give up its whole energy to the body; hence, surplusage of food, any amount more than can be healthily digested, becomes a burden and a poison, leading to numerous ills but which the layman can not believe have anything whatever to do with food or stomach. Always the income of energy should be adjusted to the

outgo. If it ever becomes much more or much less, trouble results.

Eating Without Tasting

One of the very few phrases left to us by the Chinese sage Lao-tsze is "Eat without tasting", by which he doubtless meant that food should be taken solely as a nutriment, and never for the pleasures of the palate. This is the ideal for which the intelligent are striving; but, in the meantime, most of us are so human that taste looms large in our choice of foods, so large, in fact, in the case of some of us that the real purpose of food is utterly disregarded in the eager pursuit of tempting dishes, few or none of which may contain the elements for which the body is insistently clamoring with the voice of disease. A table piled high every day with rich meats, cakes, puddings, pies, preserves, pickles, and so forth, which is a common sight in prosperous homes throughout the country, is a gateway to many of the ills we suffer, the tastiness of these delicacies spurring on the appetite to exertion beyond the stomach's capacity, the end of which is pain of some nature. These articles are to be taken in great moderation by the young, if at all, and seldom or never, in general, by the person past fifty. Preserved foods, which especially should be avoided, because of their indigestibility, are, by reason of their palatability, the unsuspected sources of many a weary siege of illness, many a long doctor's bill, many an anxious period for the worried matron who, in all innocence, has given time and thought and labor to the pleasing of her husband's and children's tastes.

It is a pathetic spectacle, this of the fond mother and wife toiling for hours every day over a hot stove, concocting sure suffering for her loved ones, in the devoted belief that she is being good to them, that she is doing all she can for their comfort. And then, the damage being done, fleeing to medicine, which can do nothing or next to nothing, instead of consulting scientific food-tables, which can do everything or nearly everything that can be done, if followed. The main object of all food is, to supply energy to the body, tastiness being but a secondary consideration; to put tastiness first, as is such a widely spread custom, is, to place the cart before the horse, with confusion more or less painful as the inevitable consequence.

Stimulants

As for stimulants for the appetite, whether in the form of alcohol, preserves or condiments, they usually are deleterious. The person who is not hungry should not eat. Let him wait until he is hungry, and, hungry in a natural manner. Although there are exceptions to this, it is, as a rule, a safe dictum to be followed in general; for, to spur the appetite, usually means to flout nature in the face, and this never can be done with impunity. He who has no desire for the food set before him, instead of resorting to stimulants or racking his brain for the conception of some kind of delicacy that would appeal to him, should go without eating for the time and continue the fast until he can eat with satisfaction. In most instances, he would not be obliged to follow this procedure long before almost any edible would appear enticing to him; for, as sometimes our system may be stuffed to satiety by the ingestion of too much food of one kind, too much food containing certain elements, with the result that that food becomes distasteful, so we may abstain from all food until the system lacks its complement of the elements contained in even the ordinary articles of diet; and then it is that we have an appetite for anything.

When the housewife becomes as particular about the nutritive elements in the dishes that she serves as she is now about their palatability, we shall see an astonishing change for the better in the disease- and mortuary statistics.

Palatability

I am not belittling palatability, by any means, for, palatability depends upon good cooking, while the health and happiness of a family depend about as much upon good cooking as upon good and proper food.

A mother will insists upon the best dressmaker, the best music-teacher, the best school for her children, yet, will pick up a fresh-caught foreign cook to perform services more important to the health and happiness of her family than are all these put together. Ignorance and stupidity should not rule in the kitchen. The physical, intellectual, and normal life of a household rests upon the kitchen, almost to the same extent that a building rests

upon its foundation. Stuff should not be sent to the dining-room that does not gratify the palate, that damages the stomach, poisons the blood, and seriously deranges the entire physical, intellectual, social, moral, and religious life of a family.

This is a vital matter. It can not be too strongly presented to the mind of the average housewife, who, in her very love for her dear ones, in her efforts to serve them with appetizing repasts, may be inflicting upon them physical conditions that would appall her if she could foresee them, and would teach her cook and serve properly and send her fleeing to the nearest available table of food-values as the most urgent study of life. There, she would find that, although the subject is vast in its ramifications, it is simple, if taken up a little at a time, is easily learned and pleasurable in the execution, probably reducing the cost of the food, greatly increasing its variety, and, in, its simplicity, cutting down appreciably the labor of preparing it.

True, there are many heads of households who, for years, have done all this, and they are the ones that best appreciate the value of it. It is those that still are perplexed over the food- or health-problems of their families to whom this article is addressed, in the hope that their attention may be called to the fact that a remedy lies waiting at hand, a simple, sensible, scientific remedy, that will add years and pleasures to their loved ones at home as well as to themselves.

Avoid Monotony

Even for those that dread statistics, there is a simple way out, and that is, to avoid that hobgoblin of American home life—monotony: the same foods over and over again, day after day and year after year, even though they may be of the best, so far as they go. Fish, eggs steak, potatoes, pudding, and pie are well enough; but, to eat them every day is, to fill the system with a preponderance of some elements, to the deficiency or utter exclusion of other necessary ones; and the time will arrive when the diet that at first was so beneficial becomes malnutrient; the result being as detrimental on the one hand as too little food would be on the other.

Let the steak be varied with ham, mutton, veal, bacon, game; even fresh pork, at a pinch—although no dietitian would recommend much of that as a general thing. Instead of the perennial egg let there be a cereal or fruit juices, or both, or crackers and milk, and so on. For the fish, sometimes substitute boiled rice or vegetables or other things. However, one should take especial care that all vegetables, the fibers of which are softened by cooking until they are too easily masticated, are chewed until they are well mixed with the saliva, so that they may pass into the stomach in a state fully prepared for digestion. In short, variety should be the watchword where now monotony prevails. Who has not eaten for breakfast the delectable griddlecake swimming in maple-sirup until the very thought of it becomes repellant! It is a good food, if taken in moderation, but, in that way alone. And it is thus in greater or less degree with all edibles.

Every physician knows of numerous instances of persons who sometime in their lives have partaken of some article to such repletion that, for years afterward, the very mention of its sets the stomach arolling. This is because, or chiefly or basically because, the body has acquired in that one engorgement very much more than enough of the elements which that article contained. Yet, the general state of the organism may be that of hunger. While it has enough of those elements, it lacks others, and other foods are demanded to supply them.

(*To be continued.*)

What Others are Doing

THE MEDICAL TREATMENT OF GALLBLADDER AFFECTIONS

Although some surgeons consider all disturbances in the region of the gallbladder and ducts as confined to their domain and hold out no encouragement for relief except through operative procedure, Dr. Samuel Weiss (*N. Y. Med. Jour.*, Aug. 2) claims that we must take into consideration those sufferers who are not eligible for surgical relief; those with cardiorenal insufficiency, those with intercurrent affections which render them poor surgical risks, and those who for various reasons will not consent to the use of the knife. These patients surely have a claim on our attention.

In dealing with these cases from the viewpoint of the internist, the principal treatment will be symptomatic dietetic and local. In certain cases, specific, or bacterin treatment may be indicated while the acute attacks require emergency treatment that is in a class by itself.

As to the symptomatic treatment of cholelithiasis, when there is much bloating of the lower intestines, enemas containing a half teaspoonful of turpentine and not over a quart in volume can be given one to three times daily. On arising, the patient should drink slowly ten to twelve ounces of hot water and should consume copious draughts of cool water during the day. In case of constipation or irregular stools, a combination of sodium sulphate and sodium phosphate in hot water may be given. For gastric distress or flatulency, a prescription containing some carminative and antifermentative may be given. Other drugs should be prescribed according to indications.

Doctor Weiss employs capsules containing sodium succinate, sodium glycocholate, sodium salicylate, and sodium taurocholate. His favorite prescriptions contain salicylates and one or more of the bile salts. There are various other preparations put forward as sure cures for gallstones and their complications, but, after extensive trial, these have given no satisfaction.

Dietetically, the first requirements is a low cholesterol diet, since in his opinion increased cholesterol in the circulation plays a part in gallstone formation. Therefore, yolk of eggs, peas, fatty meats, and all fried foods are prohibited. Apart from this factor, the diet of gallstone patients should be low in protein and fat. Carbohydrates, fruits and lean meats, the latter in small quantities, are advisable. Meals should be small and frequent and the general nutrition should be supported as far as possible.

For local treatment, Doctor Weiss values hot applications to the epigastrium or hepatic region. Hot compresses and fomentations should be ordered for the patient's use at home. Heat from a therapeutic (carbon) lamp followed by high-frequency currents applied over the hepatic region and epigastrium have given satisfactory results.

TREATMENT OF GALLSTONE COLIC

Doctor Weiss, to whose article on the medical treatment of gallbladder affections we referred to in the foregoing, recommends the following procedure in managing the acute stage.

When the stones wander from the gallbladder or bile ducts into the duodenum, there is generally acute pain and the sufferer demands relief. Anodynes and hot applications will ease the colic; hot baths and hot drinks—though vomited—will produce some relaxation of the parts and will facilitate passage of the stone. Suppositories of one grain of extract of belladonna or 1/150 grain of atropine by mouth, followed by fifteen drops of adrenalin 1:1,000, the latter repeated, if necessary, have given satisfaction and rendered unnecessary the use of morphine. There are postoperative cases in which adhesions have developed in the upper right quadrant of the abdomen, with consequent mechanical impedi-

ments to the normal functioning of the biliary machinery. These patients complain most bitterly, though many of them look fairly well.

INTRASACRAL PROCAINE ANESTHESIA FOR HEMORRHOIDS

In a paper on "Conductive Anesthesia by the Intrasacral Extradural Injection of Novocain," published in the May 10, 1919, number of *The British Medical Journal*, Samuel R. Meaker recommends intrasacral and extradural injections of procaine in association with preliminary injections of hyoscine and morphine as preparatory to operations for hemorrhoids, fistula and other operative conditions in and about the anus.

Doctor Meaker says that one may employ this method with practical certainty of success, providing the technic has been mastered. Usually, the anesthesia is limited to a circle around the anus three or four inches in radius, but, in some instances, the whole of the buttocks may be analgesic. In addition to the operations already cited, Meaker has incised several perineal abscesses, and four times he has operated for urethral stricture under the anesthesia produced by this method. Cases have been noticed where the skin of the scrotum and penis is fully anesthetized, but, this is exceptional and cannot be depended upon.

After a preliminary dose of hyoscine-morphine, according to the magnitude of the operation, age, weight and physical vigor of the patient, and the latter's mental attitude, the author proceeds as follows with the intradural injection of procaine.

The first step, and a most essential one, is to determine the position of the sacral hiatus. Usually, this presents no difficulty, but, in patients well padded with fat in that region, it may be almost impossible to recognize the bony landmarks. The routine is as follows: Feel the tip of the sacrum, which usually lies just at the top of the anal cleft and is the lowest prominent bony point of the spine. Then, to make sure that what has been felt is the lower end of the sacrum and not a displaced coccyx, feel the tip of the coccyx in the anal cleft. Next, press the ball of the right index finger, pointing toward the patient's head, firmly against the back of the sacrum at its tip in the median line and, without sliding the finger along the skin, work slowly up along the dorsal aspect of the bone. The finger will be felt to come into the apex of the inverted V which is formed by the sacral cornua. The common variations from the normal in position and size of the hiatus are to be kept in mind.

The injection is to be made through the approximate center of the hiatus. The exact site of this point must now be marked out, for, after a superficial injection the bony landmarks will no longer be palpable. Bearings may be taken relative to the anal cleft and to some such skin mark as a pigmented mole. A more accurate method is, to dip a needle in tincture of iodine and to mark out on the lower back and right buttock lines of "latitude" and "longitude," converging at a right angle upon the proper point. Care must be taken not to fall into error through the sliding of skin over bone under pressure of the finger.

An area the size of a florin over the hiatus is now painted with iodine, and a drop of procaine is injected into the skin with a fine sharp needle. Before this is done the patient should be warned that he is about to feel a sharp "pin-prick." Another drop is put into the membrane which occludes the hiatus. This membrane is well supplied with sensory nerves, and, unless these preliminary injections are carefully done, the insertion of a large needle will give considerable discomfort.

The intrasacral injection is best made with an ordinary lumbar-puncture needle of medium caliber. For insertion into the bony canal, this should be equipped with a stylet and detached from its syringe. It is held perpendicular to the plane of the back, passed through the skin over the central point of the hiatus, and pushed on until it encounters the resistance of the fibrous membrane. The outer end of the needle is now carried towards the patient's feet through an arc of 90 degrees in the midline of the back, so that the needle lies in the plane of the back, pointing towards the patient's head in the midline. During this last manoeuvre, care must be exercised lest the point of the needle be displaced from the center of the hiatus. The needle is now to be pushed as it lies straight up the back. The piercing of the membrane may require some little force, and as this occurs a characteristic "crunch" can be felt and, often, heard. The needle should be pushed

on for about two inches, when its further advance will be blocked by the antero-posterior curve of the sacral canal.

The correctly placed needle will lie in the plane of the back and in the line of the sacral spines. Its point will be movable with fair freedom within a limited range from side to side, but not at all from back to front; it will, of course, not be palpable under the skin.

There are three common errors in the placing of the needle: (1) The needle may lie in the plane of the back and in the line of the sacral spines, being at the same time entirely superficial to the sacrum. In this case the needle point will usually be visible and palpable when it is moved, and there will be superficial edema when the solution is injected. (2) The needle may enter the mass of muscle at one side or the other of the sacral spines. In this event it will have an obvious inclination toward the anterior aspect of the patient instead of lying in the plane of the back; it will also deviate somewhat laterally from the line of the spines. (3) In many cases where the needle has entered the sacrum correctly its point catches under the periosteum lining the canal. When this happens, the lateral mobility of the needle is lost, and very great force is required to make the injection.

If at the first attempt one fails to place the needle correctly, the best plan is to withdraw it entirely, and to try again after carefully noting the markings of the hiatus. Provided the preliminary injections have been efficiently done, one may "feel" for the membrane with the point of the large needle, but, this will be a hopeless task unless the original "geometry" has been accurate. If the third of the above errors be encountered, the needle should be withdrawn about half an inch and rotated on its own axis through 180 degrees.

The stylet is now removed from the needle. No cerebrospinal fluid should, of course, appear. It is impossible to tap the spinal theca by this route unless one of three conditions exists:

1. An abnormally low dural sheath.
2. An abnormally capacious sacral canal antero-posteriorly.
3. A curved needle.

Nevertheless, in one case indirectly known to the writer this accident occurred. The full dose of procaine was injected, fortunately with no worse result than an anesthesia of the lower half of the body lasting forty-eight hours.

The injection now used is 20 mils (Cc.) of a 2-percent solution of procaine in sterile water to which have been added five drops of 1:1000 adrenalin. Formerly the same quantity was employed of a solution containing procaine, 2 percent; sodium chlorate, ⅓ percent; sodium bicarbonate, ½ percent.

According to a French writer, the sodium salts favor the absorption and retention by nerve trunks of a surrounding fluid. Clinically the results have been the same, whether or not these salts were present in solution. It will be noted that the amount of procaine exceeds 6 grains. As much as 15 grains has repeatedly been used in a local or regional anesthesia, and even 35 grains has been injected without the slightest evidence of toxicity. Such trouble arises much oftener from old and decomposed adrenalin than from procaine.

THE SPECIFIC TREATMENT OF GALLBLADDER AFFECTIONS

In the treatment of gallbladder affections, especially if these are associated with the formation of gallstones, it sometimes is possible to establish a definite bacterial etiology, and in this event, specific treatment may be undertaken as outlined by Dr. S. Weiss in an article already referred to. He holds that, in every case, culture of the bile should be carried out with the idea of preparing vaccines. The following points are of value in this work:

1. The patient with gallbladder or duct disease nearly always has foci of infection elsewhere. We, therefore, make cultures from the nose, throat, teeth, and urine. When a definite strain is located in the gallbladder, we make a polyvalent vaccine consisting not merely of the organism isolated from the bile but of the same organism found elsewhere. A difference in virulence undoubtedly exists and this method contributes to the likelihood of an effective antigen.

2. Autogenous vaccines are preferable to stock vaccines, but the presence of organisms elsewhere, which are persistent and suspicious in the mind of the clinician, should be borne in mind. The doctor believes that the good results obtained have

almost always been due to this precaution. Only rarely is the single organism given.

3. Small doses, frequently repeated, are given, and increased until a definite reaction is obtained. Strong reactions are to be avoided, although some of the best results have been obtained following a strong reaction with active temperature rise and severe general reaction. In general, however, only those vaccines which give a reaction do good; but a dose should be used which provokes only a slight reaction. A strong reaction indicates that the next dose should be reduced. There is no rule as to the amount of vaccine. If about four steadily increasing injections are given without reaction, the vaccine treatment is discarded. In some cases, there is a distinct reduction in the virulence or growth ability of the organism without their disappearance.

4. Occasionally, definite organisms are found and a vaccine is prepared and given, but in spite of reactions no improvement occurs.

THE FRAMINGHAM EXPERIMENT

On several occasions (this journal, 1918, pages 492, 556, 568) we have called attention to the "Framingham Experiment" that is being conducted, with the assistance of the Metropolitan Life Insurance Company and under the auspices of the National Association for the Study and Prevention of Tuberculosis, at Framingham Massachusetts.

It will be recalled that this town was selected from among many because it presented as nearly as could be found an industrial center with average population—for the United States—consisting of native Americans as well as naturalized Americans; and, further, a fair admixture of other classes of the population.

We have acknowledged the receipt of "Framingham Monographs" No. 1 and No. 2, and have now to refer to Monographs Nos. 3, 4 and 5 that have come to our table in the course of the last few months.

Framingham Monograph No. 3 deals with a study of vital statistics, through which it appears that the community is experiencing a rapid growth which is largely in the low age groups and particularly effective among the foreign born, notably the Italian population. The death rates fluctuate year by year without showing any marked tendency for general improvement during the decade under consideration. Such an improvement might possibly be adduced from a study continued over a longer period of time.

The leading causes of death are organic heart disease, Bright's disease [so called! Ed.], cerebral hemorrhage, pneumonia, cancer and tuberculosis, in the order named.

The tuberculosis findings are naturally of very great interest but can not be given here in detail for lack of space.

Monograph No. 4 deals with medical-examination campaigns, two of which have been carried out in Framingham in addition to the regular intercampaign and medical examination and consultation work. The examination was extended, as far as possible, throughout the entire community, and the people of Framingham, it was found, cooperate cordially with this undertaking which is of unusual high interest and value for the student of vital statistics and of public health.

Monograph No. 5 discusses in great detail the tuberculosis findings, and presents much interesting information, some of which is rather unlooked for.

It is, unfortunately, impossible to enter into this "health demonstration" more closely. Those physicians who are interested in it will be able to secure copies of the various publications by addressing the Community Health Station, Framingham, Mass., or Dr. Donald B. Armstrong, Executive Officer.

One of a Million—You!

Volunteer for RED CROSS

Enlist now for the Third Roll Call. Twenty Million members are to be enrolled November second to eleventh, inclusive. Your heart, your hand, your dollar is needed in order to keep the pledge abroad and to fulfill demands at home. Give one week's service to Humanity—It pays your conscience the biggest dividend on Americanism.

Let's Talk it Over

Letters from France—XIII

THE municipality of Suresnes, the little town on the outskirts of Paris, is making extensive preparations for All Saints' Day, when the graves of the American heroes will be especially honored. The secretary of the Mayor of Suresnes told that the municipality of Paris would send a floral tribute, and numbers of French troops were sending individual tributes, and American troops, too, would take part in the ceremonies.

However much may be made of the pilgrimages to the various cemeteries on Friday, no more touching tribute will be paid to any of the fallen soldiers than is paid daily to the American dead in this cemetery of Suresnes. Every day, rain or shine, the mothers of Suresnes visit the American graves and see to it that they are covered with flowers and that all graves are in perfect order. There is scarcely a mother in the little town that has not adopted a grave, while some of them are caring for as many as twenty.

A company of American soldiers is kept there by the graves-registration bureau, to dig the graves and arrange the ground, and to extend the cemetery as the needs may demand. And a group of workers under their supervision is grading ground all about; but, immediately after a grave is made, these French mothers take charge of it, and it is cared for as if the American resting there were a son of France buried in his native land.

Mme. Quentin, of Suresnes, has charge of assigning the graves, as they are made, to the various women. She said yesterday that she had been coming there every day since January. She started when there were only 7 graves to look after, and up to the present moment she had assigned 700 graves to the women of Suresnes. She, herself, cares for 20 graves, on which she has planted flowers and placed fresh wreaths every few days.

Mme. Poussin, another mother of Suresnes, was there yesterday with her basket of flowers and plants. She cares for 7 graves. She is the former president of the French Red Cross (Les Dames Francaises) of Suresnes and is interested in hospital-work, but, says that she never misses a day visiting her American graves. There were a dozen or more women working among the flowers yesterday, all of whom had made friends with the American soldiers that work there daily, and, though they did not speak the same language, each had learned a few words, so that one could help the other whenever help might be needed.

The graves are arranged in terraced rows on the side of Mont Valérien a most picturesque spot, with the village of Suresnes below and a full view of Paris in the distance. Each grave is marked by a wooden cross, painted white and bearing a plate on which is inscribed the name and number of the fallen soldier, his regiment, with other data. At the base of the cross, there often is another plate, bearing the name of the French mother who has adopted that grave, with the French and Americans flags crossed in front of it.

Chrysanthemums are planted everywhere, and, as this is the time of the year when they bloom so profusely, the side of the mountain seems a blaze of rich coloring.

"Honor to the memory of those who died for us!

"The Mayor has the honor to inform the inhabitants that on November 1, the day consecrated to the dead, the municipal authorities and the members of the municipal council, accompanied by the local societies, will go to the American cemetery, to salute the graves and honor the memory of the soldiers of the United States army, who have died to liberate our country, avenge

*It always must be remembered that these notes were written several months ago and that they are dealing with events now in the past.—Ed.

violated humanity and right, and save the world from slavery.

"The mayor invites the population to join in this demonstration of patriotic gratitude.

"And, in order to permit everyone, rich and poor, to participate in the decoration of the tombs of our friends, gifts for this purpose will be received at the Mairie.

"The procession will start from the Town Hall at two o'clock in the afternoon."

The foregoing proclamation was promulgated by the mayor, M. V. DIEDERICH.

There are about 10,000 imported Chinamen working behind the front lines of the British and French, and recently a friend of mine, a Chinese missionary, who is looking after a certain section of them, came to Paris on leave and told me many amusing and pathetic stories.

When these coolies arrived, they had been at work nearly a year with not a white man among them that could speak their language, and they were uneasy, discontented, and in an unsatisfactory state of mind. One of their first questions was, whether the British would permit them to return home at the end of their three-years' contract or whether they would be kept here permanently. One day, one of the seeders, in an embarrassed manner, asked to have the direction toward China pointed out to him, so that he and his companions could face in that direction when they said their prayers. Imagine the poor devils not knowing the direction where their home was to be found. My missionary friend opened nine canteens along his front: he erected three large recreation-tents, furnished graphophones with Chinese records, led their singing, and gave weekly talks, and completely changed the atmosphere, from one of uncertainty and despondency, to that of cheerfulness and willing service. He recounted some incidents of the bombing of one of the regional hospitals, which proved that beneath the skin, no matter of what color, the soul of mankind is the same.

"No can do," said Wong Fong. The officer sighed. The job was urgent, and here was the strongest member of the labor-corps proving a washout. It turned out that Wong Fong was not well. He diagnosed his complaint as "muchee jump belly," so he went calmly to the hospital, took his medicine and waited impassively for recovery. Somehow, the enemy planes got through and were almost overhead. The hospital-staff worked feverishly at getting the wounded into the cellar, out of harm's way. When a nurse offered assistance, Wong Fong shook his head. "Can do," he said briefly, and assisted like a man.

One by one, the wounded, tight-lipped and pale, were carried downstairs, so that the ward was almost empty when the first bomb struck it. A doctor gave a choking cough and collapsed. Wong Fong staggered slightly, looked dazedly at the destruction and carried on. The sick man in his arms stared at a spreading stain on the chinaman's jacket.

"Oswald," he said, "you're hit." Wong Fong carried him downstairs without a word.

"Sister," cried the sick man. "Sister, I think he's hurt." The nurse hurried forward. "Let me see," she said, and looked grave.

"Here, lie down," for she saw that the injury was serious. Wong Fong opened his sleepy eyes wide. The nurse stared in wonder at the depths revealed.

"Can do," said Wong Fong fiercely, and started for the stairs. He made an effort, collapsed against the wall, and slid to the floor. He tried to rise, then laid his pale cheek against the flags.

"No can do," he whispered, and closed his eyes.

Members of the S. S. U. 643 of the United States Army Ambulance attached to the French Army recently reached a town that had just been evacuated by the German troops. One of the ambulance-drivers, with several brancardiers of the division, entered a house that had been used as a billet by the Germans. In pulling a mattress from the mass of débris on the floor, the brancardiers noticed that wire encircled it. Careful investigation disclosed that a hand-grenade had been wired to the mattress. Fortunately, the device was discovered before it could do its devilish work.

Two other cases, however, witnessed by men of the section, did not end so fortunately. In a field adjacent to a poste de secours, a French soldier, in gathering up an armful of hay with which to feed his horse, was terribly mangled when a grenade set and hidden in the hay exploded. Another soldier was instantly killed when he un-

corked a bidon (tin can) that had been filled with explosive.

One of the most beautiful and stately chateaus of France has been loaned to the American Army for a leave-center. This chateau is rich in works of art. The splendid park and the facilities for golf and tennis are speedily making the new "leave-spot" popular with the American commissioned personnel.

The chateau is one to which clings unusual historical interest. Something over one hundred years ago, it was used as a prison for a fullfledged king, Ferdinand VII of Spain. Napoleon I, having captured his fellow monarch, had turned him over to the Prince de Talleyrand, for safekeeping. The prince then was living in the present home of the Duc de Valencay, and he took the Spanish monarch there with him and kept him captive for seven years. When the time came for King Ferdinand to be released, he had become so attached to the place that he regretted leaving it. The apartment occupied by the Spanish king still contains all the original furnishings and is open to visitors. Many rare paintings and tapestries are also to be seen in the chateau.

The Y. M. C. A. will conduct its new "leave-spot" in a thoroughly up to date American fashion. There will be American meals, and an American hostess to make the Yankee officers feel thoroughly at home. Baronness de Seillière, an American by birth and an aunt of the Duc de Valencay, will be patroness and will excercise her general supervision over the entertainment of the visiting officers. Everything will be ready for the opening of the chateau to American officers within a week. It is planned to utilize the establishment for officers in the training- and supply-areas that wish to pass the week-end, overnight or single-day leaves amid attractive surroundings. The estate is easily accessible from a large number of places in the service- and supply-region, and a minimum of time will be consumed in traveling there from several of the largest American bases.

Another "bit of America" was set up at 10 rue de l'Elysée, in the form of a regular American library, which is to be run on the American plan, exactly like any public library at home. It is the first of a number of central libraries to be opened by the American Library Association, around which the entire library-service will be built for the American Expeditionary Forces and for all American warworkers in France.

Requests, from soldiers, for books of every kind and on every subject have been coming in by hundreds, and the shipping-department has been in full running order for the last two or three weeks, sending books out to various units in every part of France.

On Sunday, August 25, [1918!—Ed.] the Y. M. C. A. held a great fête and games in the Tuilleries Gardens, for the benefit of the victims of the bombardment of Paris by the long-range gun, and it was such a brilliant success that the Prime Minister Clemenceau wrote to congratulate the society.

The Japanese Red Cross commission, which, on Sunday, started on a tour of American Red Cross hospitals, returned to Paris yesterday and the members were the guests of the American Red Cross commissioner for France, at a luncheon given in their honor at the Hotel Ritz.

Five members of the commission will go to Havre, where they will be received by the Belgian court and will pay their respects to the king of the Belgians. The commission will remain in Belgium for three or four days and then will return to Paris, on their way to Switzerland and Italy, where they have been charged by the American, French, and other Red Cross organizations to perform certain duties. They will pay their respects to the Italian Red Cross, as well as to the International Red Cross in Berne. The commission has brought back a number of gifts, consisting of bandages, surgical instruments, and other Red Cross supplies. These they will send to various hospitals in France.

The death of Lieutenant Blair Thaw closes a career that was unusually full of promise, for, although only 19 years of age, he was an inventor as well as a flier of long experience, and had taken out patents in many countries on various devices to be used in aviation. He left school several years ago, to work out his ideas, and it was to test them in practice that he first learned to fly. His pilot's license is dated April 5, 1916, and, on September 27 of that

year, he obtained the expert-aviator's certificate of the Aero Club of America. On July 13, 1916, Thaw was commissioned a first lieutenant in the New York National Guard. His commission in the Officers' Reserve Corps of the United States army dates from June 1, 1917, and he was among the first of the American aviators to go to France, after the United States joined in the war. He had seen some months of active service on the front and had been recommended for promotion, when, on Sunday, August 18, in making a forced landing he struck some unseen telephone-wires and, in the crash that followed, was instantly killed. Lieutenant Cord Meyer, who accompanied Thaw, was seriously injured, but will recover.

A pathetic feature of the tragedy was, the behavior of Lieutenant Thaw's dog, an Irish terrier, which had been his faithful companion for seven years. The dog was in the aeroplane at the time of the accident, but, no trace of his could be found in the wreckage. Four days later, he was discovered near the scene, alive and unhurt, but, heartbroken at his master's unaccountable failure to return.

Lieutenant Thaw's enthusiasm and happy disposition had endeared him to a large circle of friends, both in France and America, and the record of accomplishments of his brief life will ever be an example to them and to the service.

B. Sherwood-Dunn.

Paris, France.

DIARRHEA TREATED BY RECTAL INJECTIONS OF CHLORAZENE

Dr. R. C. Faulds, Abrams, Wisconsin, reports a case of diarrhea in a child three months old that he was called to attend. This was in a Polish family living some distance from town and the child had been suffering so long and was so far gone that, when the doctor arrived, it was out of the question to give anything by mouth, as the little one could not swallow.

The doctor decided to try chlorazene solution by rectal injection. Dissolving one tablet in two glasses of water he injected this, with the buttocks well elevated. In a few minutes, this was passed out and fifteen minutes later he repeated the same strength injection, using the second time an extra long rectal nozzle on the syringe in order to deliver the fluid as far up the bowel as possible. A passage of the bowels soon followed the second treatment and no further symptom of diarrhea was noted. The child made a speedy recovery.

This is a new use for chlorazene and one that has much to commend it in cases in which the colon is the seat of irritation.

PHYSICIAN WANTED IN IOWA

We are informed that there is a good opening for a physician in Long Grove, Iowa. It is said that the income from the practice amounts to from six to eight thousand dollars a year. Our informant is Mr. M. M. Rice, dealer in general merchandise, Long Grove, Iowa, who, undoubtedly, will be glad to respond to inquiries by interested physicians.

STUDIES IN FOOD ECONOMICS

As to Animal-Protein in the Diet

Doctor Hindhede relates additional knowledge gained, which I quote further on.

It has been said, and I believe with truth, that the grain needed to produce beef enough to feed one man would, as such, maintain ten men. Chittenden, in his "Physiological Economy of Nutrition," demonstrates that nitrogen equilibrium and a normal state of efficiency can be maintained upon a diet containing not more than from 30 to 50 Grams of protein for each twenty-four hours.

McCay, in his studies of the "Bengalis of India," finds that the average weight of protein metabolized is about 37.5 Grams per day. The results of Professor Hindhede, presently to be quoted, are even more convincing.

Hindhede recites the case of the jinrikisha-men of Japan employed by Professor Baeltz ("Protein and Nutrition") as follows: "I had two jinrikisha-men; two powerful young fellows, one twenty-two, the other twenty-five years of age. They had followed the same calling for years. I provided their food, which was exactly measured; what they ate and what they drank; and the chemical composition of the food was ascertained by recognized means. These men received definite instructions:

"Every day for three weeks, they had to drag me, a man weighing 174.4 pounds, a

distance of 24.84 miles, running all the time. That appears to be a fairly arduous task, but, not more so than that which these men would have willingly undertaken. But, for my purpose, it was quite enough, for, we considered a walking-expedition of 40 kilometers as something quite respectable; but, for a man to run 40 kilometers every day throughout a sunny August, is rather more than one would usually expect of us.

"Now, the men, during this experiment, kept to their usual diet, which contained fats amounting to less 59 Grams, or, 140 calories.

"In addition, they consumed carbohydrates (starch), such as were obtained from rice, potatoes, barley, chestnuts, lily-roots and other foodstuffs peculiar to the country. After fourteen days, I again weighed the two men. One did not show any change, while the other had added half a pound to his weight. After the fourteenth day, I told the men that I wished to give them meat. They were delighted, for, meat is a luxury to them. I, therefore, substituted for a part of the carbohydrates a proportionate quantity of protein. The men ate it with avidity; but, after three days, they came and asked me to discontinue the meat and to give it to them only upon the conclusion of their probation, because they felt so fatigued and could not run so well as before."

Another instance is quoted from Professor Fisher in *Munsey's Magazine*:

"The flesheaters largely were men in training for athletic contests at Yale. The flesh-abstainers were such Yale students as I could find that did not use meat or used it sparingly, besides nurses and physicians of the Battle Creek Sanitarium. Forty-nine subjects were tested.

"The results of the comparison certainly were surprising and showed almost conclusively that those who used low protein and little or no flesh not only had greater physical endurance, but, far greater than those that were on a socalled training-diet.

"Protein from some source, either animal or vegetable, is an absolute essential for tissue-building and repair. Experiment places a liberal minimum necessary for these purposes at approximately 50 Grams."

H. C. Sherman ("Food-Chemistry in the Service of Human Nutrition," *N. Y. Med. Jour.*, Jan. 26, 1918) considers 50 percent addition to this for emergency and for growing children and nursing women. In an editorial in *The Medical Record* for April 1, 1918, the writer epitomizes present thought on this subject. He says:

"Unquestionably, the consumption of too much protein accelerates the progress of the degenerative diseases of the heart, arteries, and kidneys."

The potential danger in every protein molecule is now generally appreciated, owing, in a great measure, to the exhaustive investigations of Vaughn. It is well known that every protein molecule contains a poisonous group that is identical in all proteins or closely similar in action.

The toxicity of this poison may be appreciated in the light of Vaughn's statement that "from 1 grain of casein, enough of this poison can be obtained to kill 800 guinea-pigs when injected intravenously" (*Jour. Am. Med. Asso.*, Nov. 25, 1916).

Just here, I would query whether an excess of protein, and its degenerative modifications, may not be conducive to the favorable reception of different pathologic germs and the poisons excreted by them?

L. F. Bishop ("Arteriosclerosis,") says: "The key to the riddle of arteriosclerosis, I believe, lies in just this sensitization of individuals to particular proteins or, to be more specific, to split products of particular protein."

Longcope, as a result of clinical observation, was led to wonder whether nephritis might not depend upon a condition resembling protein-intoxication. In experiments with animals, to determine this point, the marked cellular injuries in kidneys and liver, following the injection of small quantities of protein, "suggest the possibility that, in certain instances, at least, degenerative processes in man may result from protein intoxication" (*Jour. Am. Med. Asso.*, April 18, 1914).

In certain portions of the world, under certain conditions of environment, men are compelled to live on a diet consisting almost exclusively of animal-protein and yet, maintain robust health.

This seeming refutation of what has preceded is easy of explanation.

The intake of protein over and above that required for tissue-building and repair, in the absence of sufficient carbohydrates, is utilized, being used, in the meta-

bolic transformations of the body, for the production both of force and heat.

Both, from an economic standpoint and that of pathologic changes, for those of us that are given to a heavy meat-diet, along with our accustomed carbohydrates and hydrocarbons, the question of an essential lowering of the protein-content of our dietary is worthy of our earnest consideration, as also for that of the medical practitioner.

For, on such questions, the layman, naturally, looks to his family-physician for advice, and, through him alone, may positive results in health-matters be expected.

A. T. Cuzner.

Gilmore, Fla.

HOME-NURSING CLASSES STARTED IN TENEMENT QUARTERS

Five classes in elementary hygiene and home-nursing for women are in full swing at the first Red Cross tenement headquarters opened in a four-room flat rented by the Red Cross at 510 West 26th Street, New York City.

One class is made up of the younger women of the neighborhood, while the older women are instructed on another evening.

Complete equipment for teaching the course, with three beds, mattresses, bedding, and a kitchen-outfit, have been installed in the flat.

THE FASTING-CURE FOR ALL ACUTE FEVERS, "COLDS," INFLUENZA, SICK-ROOM-DIETETICS, PTOMAINE-POISONING

The medical profession learned nothing from the Tanner fast, in 1884, of forty days on water. There have been hundreds of fasts of from five days to ten days, but, mostly by practitioners outside the regular profession. Still, the intention was, to save life. Only a few years ago, there was a great-to-do about the 30-days' fast of Pt. of Levanzin, under Harvard direction; but, even from this, no practical results have followed; else, there could not have been the slaughter of influenza-patients that in days to come will be attributed to the crass ignorance of doctors in attendance during the epidemic of 1918-19.

If doctors do not know the cause of any disease, they can not be expected to know how to cure it. As long as they regard influenza as a contagious disease caused by a "germ," rather than its being altogether a matter of individual ill-condition chiefly owing to excessive clothing that smothers the skin (a true breathing-organ), so long will the victims of bundling be liable to such attacks, and, under the prevailing treatment, a fatal termination is likely, unless the patient is "too tough to kill!"

As has been proved during the late epidemic, every "cold" is incipient influenza, and one chief cause of the development of the disease has been, the feeding or these patients despite the absence of appetite. In fact, no feverish patient ever is hungry, and food taken under such conditions is bound to fail of being digested.

But, when, from any cause, food is not digested, it inevitably putrefies, and the absorption of this putrid stuff into the circulation, constitutes the intestinal autotoxemia or ptomaine-poisoning of which we hear so much of late, but, about which the medical profession in general seems to know so little, usually attributing it to a "germ!" Here we have the explanation for the fearful slaughter; for, it has not been the influenza, itself, but, the irrational treatment, namely, stuffing and drugging, that has caused the many long illnesses and hundreds of thousands of fatalities.

Now, while we must all be abundantly fed, there are occasions "when a meal lost is a better one gained," and when a brief therapeutic fast would abort a disease and make possible convalescence and final speedy recovery.

It is the prevailing ignorance among doctors as to rational sickroom-dietetics that accounts for the 50 000 deaths in this country every year attributed to "typhoid fever," a disease of the wrong treatment of the primary fever. The same principle applies to "colds," influenza, and all critical acute diseases.

As for influenza, we have here and there a case every day in the year, although, of course, epidemics of the disease occur during unseasonably warm weather in midwinter, when everybody is enveloped in winter-clothing, and, through ignorance, not daring to strip down to keep cool and let the skin breathe. I have had my fair share of influenza-cases during the late epidemic, as well as during the epidemic of 1888-9; but, there has never been a death

nor any long-drawn sickness; for, every case has been speedily aborted by therapeutic fasting—not a morsel or sip of food permitted before convalescence and the patient at ease and with a normal appetite for the plainest of wholesome food. I have directed cases successfully by telegram and telephone. The prescription has always been: "Keep the patient cool, fasting absolutely until convalescence, allowing fresh water according to thirst."

CHARLES E. PAGE.

Boston, Mass.

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[The form of socalled influenza that was observed in the latest epidemic of last September and continuing, has been attributed to a multiplicity of causes, including vitiated atmospheric conditions ("brought on by the war"), but, we never have seen "ill-condition owing chiefly to excessive clothing" blamed for this malady, nor the feeding of these patients despite the absence of appetite. While it is true that the bacteriology of this influenza is not definitely understood, and, probably, is quite complicated, it is a mistake, in our opinion to deprecate or ridicule the inclusion of influenza among the infectious diseases.

Physicians who pride themselves in opposing the prevalent, or dominant, opinions concerning the causes, origin, and nature of diseases, should be careful to familiarize themselves with the actual status of accepted theories. Nobody nowadays asserts that bacteria ever are the only or even the immediate cause of disease.

The mere presence of pathogenic bacteria, on the skin or, the mucous membrane, does not constitute infection. That takes place only if the bacteria multiply in, and exert their injurious mechanical or chemical action upon, the tissue-cells. The transition from "infection" to "infectious disease", therefore, is very slight and may not always be strictly recognized.

However, what we were going to say is this: The occurrence of the infectious, or bacterial, disease depends invariably upon the presence of the specific infection in an organism *the resistance of which is lessened* through any one or more of several factors. These factors are conveniently included in the descriptive term "predisposition"; possibly, a better one would be, "lessened resistance." Von Pirquet proposed the term "anergy" for the condition. The bacteria can act unfavorably upon the tissue-cells only if the natural resistance to them is diminished or lost.

As for the assertion of our correspondent that the medical profession in general seems to know little about autotoxemia of intestinal origin, and for the further claim that "it has not been the influenza, itself, but, the irrational treatment, namely, the stuffing and drugging, that has caused the many long illnesses and fatalities"—both points simply are misstatements of fact. There are at the present day, few physicians that are not fully aware of the importance of intestinal autointoxication and who do not institute their treatment of almost every disease-condition whatever with an appropriate "house-cleaning."

Again, even a cursory reading of the voluminous influenza-literature published during the last ten months or so will show that, in most cases, fasting has been recommended for the first twenty-four or forty-eight hours, and that a very simple diet has been advocated for the entire course of the attack.

When it comes to the drugging that has been indulged in, we must say that we have been surprised at the good sense that characterizes most recommendations in that respect. The prevailing tendency has been distinctly one of giving as few drugs as possible, meeting the imperative indications, while refraining from any gratuitous drugging for its own sake or just "to be doing something." Altogether, it seems to us that drug-treatment is entering into a more reasonable phase; that drugs are given less indiscriminately, but, with closer attention to their indications and to the needs of the patients to be treated.

In view of all this, why did we print this letter? To tell the truth, we do not quite know; unless it be, to show to what lengths some people will go when they are determined to criticize. Criticism should be constructive; also, it should be based upon a truthful and correct evaluation of the facts that are being criticized.—ED.]

BLOOD PRESSURE IN INFLUENZA

I have not seen any report about the peculiar course of the blood pressure in the recent epidemic of influenza. My own observation has been that there is a steady

rise in the diastolic pressure from the time that the temperature begins to fall. That this pressure remains above normal for two or three months, in some cases longer, and that the patients do not regain their normal vigor until either the diastolic pressure lowers or there is a compensatory increase in the systolic.

In nearly all cases studied, there were very potent evidences of renal degeneration. A more or less serious albuminuria was, virtually, constant and, in every case, there were epithelial and hematic casts. This disappeared in three or four weeks, but, the pulse pressure has remained subnormal in nearly every case that I have observed. Some of the older patients with systolic pressures of 150 to 160 mm. recovered their pulse pressure in two or three weeks, by raising the systolic pressure ten to twenty mm.; but, the younger patients do not seem to recover as rapidly.

This peculiar pressure condition can explain many of the sudden deaths of patients apparently recovering from influenza, as also much of the symptomatology in attacks of this disease; the hepatic congestion, intestinal torpor, insomnia, lassitude.

If this isn't old stuff to you, I am prepared to furnish some case-records, with charts showing these things. Virtually nearly all of my patients survived.

F. N. Townley.

Kenesaw, Neb.

PREDETERMINATION OF THE SEX, AND CAUSE OF BARRENNESS

When I began the practice of medicine, I began to make a search for the cause why some parents have only daughters, while others have only sons. I also assumed that, if I could find this cause, it might give me a clue to a method of determining the sex desired in one's future children.

It is evident that the spermatozoon of different animals requires various lengths of time for development to the point where it can fecundate an ovum, as, for example, the stallion fails if he serves more than two mares per day, while the yearling bull could successfully serve ten or fifteen per hour, [?!—Ed.] if he be given three hours in the twenty-four for feeding. And a healthy cock can more than double-discount the bovine male.

The first basis on which we have reached many of our conclusions is, the fact that the spermatozoa of man can not attain sufficient vigor, short of three or four days, to fecundate the ovum, and the difference in the time is determined by the difference in the sexual powers of the various individuals.

Now, while I was making these investigations, I was also looking for the cause of barrenness of some healthy women, and I thought that I had found the one greatest cause. My next effort was, to try out my theory. I knew of several childless couples anxious to have children, and they gladly agreed to give my theory a trial in both directions. Sure enough, their efforts were, generally, successful in the first trial, and, to my delight, the babies always were of the sex intended.

Now, to explain my position, by actual experience. Take the family of Mr. and Mrs. O. H. The pair had raised 7 strong, healthy daughters, and I attended the mother in her last two confinements. In the last one she had twins, a boy and girl, the latter strong and well developed, weighing 7 pounds, while the son was too weak to get a start in life and died twelve hours after birth. He weighed but 3 pounds.

The mother was very strong, physically and sexually, and the greatest worry of her life was that her husband was sexually so weak. Knowing the family well, I learned that the husband got no rest from his conjugal exertions, except during those few days when the wife hoisted the crimson pennant, while, only after this period of rest did his spermatozoa acquire sufficient power to fecundate the mate. But, this was also the time when the wife was the weakest sexually. For, menstruation tends to weaken the woman sexually [In some women, the libido is greatest during, and shortly after, menstruation.—Ed.] while this also is the time when she begets female children. Hence, this pair always begot daughters. For, it was the only chance the husband had to become a father, and that at a time when the wife could produce only daughters.

Now let us take another family, Dr. H. and wife. He was a very strong individual, over 6 feet in height, and weighed over 200 pounds, while she was a very feeble woman, never weighed over 110 pounds, and, yet, she raised 4 sons, who developed into very strong and bright men, far above the average. Also they had 1

daughter, but, she was much inferior in mentality to her brothers, in fact, below the average. I knew the family well, and I know that the menstrual function always brought the wife down physically to a condition from which she did not recover fully for many days; while the husband, being very gentle and tender with the wife, refrained from the marital privileges until she was well rested from the weakened condition. Consequently, when she conceived, it was a short time before her menstrual period, that is, when she was sexually strongest, and, so, gave birth to boys. Their one daughter got her start in life when the mother was too weak, at the time of the creative impulse, to develop the nucleus of a strong child, and we see the result.

I need mention but these two families; however, I could adduce dozens of them, with as clearly defined conditions, and results.

In scores of cases, women have come to me and said, "I am caught," and they knew the time of the occasion. After investigating the concomitant conditions, I have made a note of such a case, writing in my memorandum-book that Mrs. Blank is going to have a son or a daughter, as the case might be, and it always came out as I soon learned to know that it would. For, I had decided that conception which takes place soon after menstruation, when the woman's sexual system is weakest, gives rise to a female, while the conception that takes place just before menstruation, when her sexual system is strongest, produces a male.

Cause of Barrenness.—Now, as to the cause of barrenness in strong, healthy women, I will say, that it generally is because the spermatozoa have had no chance to reach the ovum, as the would-be mother arose after copulation and thoroughly cleansed herself, and, even if she used no "whirling spray," the fluid containing the spermatozoa nevertheless had gone from her entirely.

We generally find these cases of barrenness in women that are full-fleshed, with round, firm arms, and, while they may not be corpulent, their vaginal tubes are tightly closed, because of the adipose formations surrounding them; and this condition is favorable to the canal clearing itself of all fluid, even though the woman may not always get onto her feet; still, if a woman is tidy about her person, she will do so.

I will speak of cases that came to me some years after I had determined the facts just mentioned.

One day, B. L. came to me and said: "What do you suppose is the reason why my wife does not get a child?" I answered that I should guess that the "whirling spray" could answer that. But, he said that this might have been the cause the first year after they were married; however, for two years, they had wanted a child, yet, none made its appearance. I asked him how his wife conducted herself after coition, and he said that she arose, sat on the vessel and cleansed herself, but, used no douche. I told him that she had given him no chance to impregnate an ovum. Then I asked him what sex his wife would prefer, and he said that she would be delighted with a daughter. I then gave him directions how to proceed as regards the menstrual period, making the trial immediately after the flow; and I told him that after the orgasm, he should carefully and immediately withdraw and, to be doubly sure, plug the vagina with some absorbent cotton, so as to prevent any of the contents from leaking out. Further, that the wife should remain in her recumbent position until morning. The result was, that, in less than two months the man came into the office and said: "Doctor, you have a very small girl up at our house!" As events proved, he had guessed the sex correctly.

In about a year from this time, one Mr. H. came to the office and said: "My friend B. L. says that you can tell me how we can get a son at our house, and that is what we have wanted ever since we were married, this now is over seven years." He was a wealthy farmer and greatly wanted a family of children. I gave him the directions as outlined above, except that coitus should take place immediately before menstruation. In a few weeks the man came into the office and exclaimed: "Well, doctor, I guess you have fixed it!" And he seemed greatly pleased over the result.

Since this time, the last-mentioned couple have had six children, three sons and three daughters, and each time they got what they aimed at.

I will state here that the two women just referred to are well built and full-

fleshed, and are naturally very tidy in their persons, which, in these cases, accounted for their previous barrenness.

It is now more than twenty-five years since I decided that this theory of the determination of the sex of a child is based upon fact and in this time I have found dozens of families that were childless, to their great disappointment, and, who, after following my advice generally were successful after the first trial, the sex being as they had designed, every time.

And now, brethren, do not be skeptical and say that this is just another theory, but, try it out in your own home or in some neighbor's home (by instructing them I mean!), and you will see the results that I have seen during these many years.

I will say that my first clue to this main cause of barrenness came from a good Methodist clergyman, and it came innocently and honestly; however, it sounds too much like an unclean story to relate it here. Still, if any of you wish to know what it was, send me a self-addressed envelope, and I will tell you, when you will see the reasonableness of his statement.

It is possible that, as the old theory has it, a plug of mucus in the cervix sometimes may prevent conception, but, not often, for, the spermatozoa are not large enough to be turned back from their purpose by that little plug, or by a contracted os; for, if the menstrual fluid can get out of the womb, the little whiptails can get in.

J. T. Potter.

Billings, Okla.

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[This theory does not explain the twin conceptions of boy and girl, unless there are always cases of superfetation, the boy-twin being conceived before menstruation, the girl-twin after it.—Ed.]

ANTINARCOTIC LAW AND PRACTICE ACTS CRITICIZED

You have warned the doctor time and again that the druggist would take his rights from him by tampering with legislation pertaining to the practice of medicine. Think of a country doctor going five or ten miles into the country to see a patient who, perhaps, is suffering intensely. We can give an opiate and relieve him, but, are not allowed, under the antinarcotic law, to leave a dose to keep the sufferer comfortable until we can visit him again, unless we register in a book the amount given, the date, name of patient, postoffice, and other details. Now, if we have to keep books, we might just as well keep drugs and get the profit. Think of a patient having to send ten miles to get a few doses of medicine and to suffer until the doctor can arrive on horseback. You say that this is an exceptional case? Not so. There are thousands of cases in the country districts.

This Harrison law was drawn in the interest of the druggist, without the exercise of common sense or regard for the doctor, especially the country doctor. I go out, say five miles, to see an infant having colic, and I am not allowed to give or to leave the babe a dozen granules of Waugh's infant anodyne without recording it in a book. This is an outrage against the medical profession, and amounts to charging physicians with dishonesty.

I want to call your attention to another matter, and that is, the hardships put upon the medical students of the present day. The medical men that have brought this about did not have to comply with these requirements, neither did their fathers before them. The doctors of this country today can not let their sons be educated in medicine. No, not even one son, if there are other children to be educated. The medical student is required to complete the common-school course and then finish four years in high school. Not less than two years in college, and then four years in a medical school, so that, by this time, the young man is 28 or 30 years of age and it has cost from 12,000 to 15,000 dollars to fit him for work, and, yet, he is not educated. For, this word "educate" is only a relative term and the doctor must remain a student all the days of his life; even if he were forty when being graduated in medicine, he still would have much to learn. A poor boy can not study medicine any more. You rarely ever see a young man now studying medicine, while the older practitioners are dying out or becoming disabled. There is a demand now for doctors in many rural districts, while in less than fifteen years there will be a famine in doctors. The doctor who has been graduated at such a high price will not go to the country where roads are bad and take horseback-trips through mud and snow. And, who can blame him? They

will be scarce and will, of course, pick the towns and good-roads districts.

Then the people will appeal to the state legislatures to allow men to be graduated at less cost of money and time, turning out men that will be competent to take care of their wants or else they will go to the osteopath, the faith curer, Christian Scientist, or some other faddist.

Do not understand me to be against proper education; but I am against this extreme legislation that puts our sons out of medicine. We are educated in a thing when we are able to put into practice that which we have learned, and, if we learn much about any one thing, we must be content to be ignorant about a great many other things.

W. W. Lasley.

Lewisburg, Ky.

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[In many ways, your strictures are well taken, and one can not but sympathize with the country physicians in the actual hardship caused to them and to their patients by the many formalities demanded by the Antinarcotic Law. There is this to be said, however, that, in its further development and ultimate perfection, the advantages of restrictions being placed upon the dispensing and prescribing of narcotic drugs undoubtedly will result in benefit and will far outweigh the disadvantages that are so glaringly evident at the present time.

As to your complaint about the difficulties confronting young men anxious to study medicine and to fit themselves for the practice of this profession, the trend always has been toward progress. It can not be denied that, twenty or thirty years ago, when the study of medicine and the acquiring of a license to practice was a simple affair, relatively speaking, many inefficient and badly qualified doctors of medicine were turned loose upon a suffering public, many of whom never became real physicians.

Here, again, the improvement can be but gradual, the measures to bring this about being tentative. It is unavoidable that, in the transition-period in which we still find ourselves, hardship and even unfairness results and that opportunities for young men without financial means are much restricted. It is to be considered, however, that the aim is a worthy one, since it is intended to secure for the public more efficient medical services.

It is very true that the people themselves at the present time often stray to the osteopaths, healers, and others of that ilk. This complicates matters. Yet, there is a process of education going on through which the people come to appreciate good and competent medical service, and, indeed, demand it.

The problem is an exceedingly difficult one and one that can not be solved offhand. We can not but hope and, indeed, expect that it will be solved in time in a manner that will result in the greatest advantage, not only to the suffering public, but, to the members of the medical profession themselves.—Ed.]

ENFORCEMENT OF THE HARRISON NARCOTIC LAW

The following information was issued on July 31, last, by the Commissioner of Internal Revenue at Washington, D. C., and is of sufficient importance to be reproduced verbatim:

1. *Use of narcotics in the treatment of incurable disease, other than addiction.*—With reference to persons suffering from a proven incurable disease such as cancer, advanced tuberculosis and other diseases well recognized as coming with this class, the reputable physician directly in charge of bona fide patients and suffering from such diseases may, in the course of his professional practice, and strictly for legitimate medical purposes, prescribe narcotic drugs for the immediate needs of such patients, provided said patients are personally attended by the physician and that he regulates the dosage himself. The prescriptions in such cases should bear the endorsement of the attending physician to the effect that the drug is to be dispensed to his patient in the treatment of an incurable disease.

Such bona fide cases of incurable disease should not occasion difficulty in the proper administration of the law, and the fact that the patient suffering from such incurable disease is addicted to the use of narcotic drugs should not complicate the matter. In this class of cases, as well as in others hereinafter mentioned, caution should be exercised to avoid being imposed upon by unscrupulous persons, and too

much credence should not be given to the unsupported statements of the addict himself, because the confirmed addict will go far beyond the truth in an attempt to secure an ample supply of narcotic drugs with which to satisfy his cravings.

The primary responsibility obviously rests upon the physician in charge of the case. The Bureau manifestly is not charged with the duty of laying down any fixed rule as to the furnishing of drugs or the frequency of the prescriptions in any particular case involving an incurable disease. The danger of supplying persons suffering from incurable diseases with a supply of narcotics must be borne in mind, because such patients may use the narcotics wrongfully, either by taking excessive quantities or by disposing of a portion of the drugs in their possession to other addicts or persons not lawfully entitled thereto.

While the primary responsibility rests upon the physician in charge, a corresponding liability also rests upon the druggist who knowingly fills an improper prescription or order whereby an addict is supplied with narcotics merely for the purpose of satisfying his addiction.

2. *Aged and infirm addicts.*—Cases will come to your attention where aged and infirm addicts suffering from senility, or the infirmities attendant upon old age, and who are confirmed addicts of years' standing will, in the opinion of a reputable physician in charge, require a minimum amount of narcotics in order to sustain life. In such cases prescriptions to meet the absolute needs of the patient may be written and filled without involving a criminal intent to violate the law. Even in these cases every reasonable precaution should be exercised to prevent the aged and infirm addict becoming the innocent means whereby unauthorized persons may engage in the illicit use and traffic in these habit-forming drugs. Prescriptions in this class of cases should bear endorsement of a reputable physician to the effect that the patient is aged and infirm, giving age, and certifying that the drug is necessary to sustain life.

3. *The ordinary addict.*—One of the principal difficulties in administering this law will arise in the case of the ordinary addict who is neither aged or infirm nor suffering from an incurable disease. Mere addiction alone is not recognized as an incurable disease. It is well established that the ordinary case of addiction yields to proper treatment, and that addicts can be taken off the drug and when otherwise physically restored and strengthened in willpower will remain permanently cured. The average addict does not believe this and it is symptomatic with him to have a fear and distrust of any treatment or cure. Wherever the occasion presents itself, the hope of successful treatment should be instilled in the minds of the unfortunate addicts to this terrible habit.

The law as construed by the Supreme Court holds it to be a crime for any person, including practitioners, to furnish an addict with narcotics for the mere purpose of satisfying his cravings for the drug. The enforcement of this law as thus construed presents a problem attended with serious difficulties.

The ordinary addict, when suddenly deprived of the drug to which he is addicted, suffers in an extreme manner both physically and mentally. In this condition he may become a menace to life and property and practically a public charge. Therefore, it must be recognized that at present the care and treatment of such unfortunate addicts is primarily a problem to be locally handled by the municipal and State authorities. It is generally recognized that the indigent sick of a community are public charges therein, and that such immediate care and treatment as is required should be furnished by the local authorities.

A project is under consideration looking toward the assistance of the United States Public Health Service in the institutional care of these addicts, but no specific appropriation for this purpose has as yet been provided by Congress.

Collectors and Internal Revenue Agents should confer with each other and with the United States Attorney in their respective districts and divisions regarding the handling of local emergencies as they arise, and should arrange conferences with local authorities including Boards of Health, for the purpose of establishing at the earliest practicable date public clinics where relief may be afforded in conformity with the law. Clinics of this character have already been established in certain cities, notably New York, New Orleans and Memphis.

The field officers of this Bureau are expected to investigate and report every il-

licit trafficker in narcotic drugs, including any peddler, smuggler, manufacturer, wholesaler, retailer, and practitioner, or other persons, who willfully violates the intent and provision of this law as construed by the Courts. In no other way can this menace to the manhood of our country be eliminated. The commercial or socalled "Morphine Doctor", must be kept under proper surveillance, and in every case where clear evidence of this wilful intent to violate this law is procured no compromise will be made, but his vigorous prosecution will be insisted upon.

This matter is brought to your attention because of its extremely important and far reaching consequences. So vital a problem must not be overlooked or treated indifferently. Any helpful views submitted will be welcomed and given careful consideration in connection with our administrative plans and future legislation.

DANIEL C. BOPER, COMMISSIONER.

Washington, D. C.

RED CROSS NOTES

Maternal Welfare Work in France to Continue.—The Maternal Welfare Work, established in France, under the auspices of the Red Cross Children's Bureau, by Dr. F. L. Adair, Associate Professor of Obstetrics and Gynecology in the University of Minnesota, Minneapolis, is to continue. The plan of prenatal consultation established by Dr. Adair is to serve as a model in the School of Puericulture of Child Welfare, which is to function under the American Red Cross Children's Bureau cooperating with the Medical College of Paris.

In September 1918, Dr. Lucas, Director of the Children's Bureau, began an investigation of prenatal care in Paris. He requested that the work be organized systematically under a definite head and Dr. Adair was given the commission.

In the few months, during which the work was established in two sections of Paris, the population of which numbers 600,000, about 500 prospective mothers were cared for in the consultations and also in their homes, which means that this number of families were approached in both a medical and social way.

In the hospital Social Service work, which was conducted for only two months, the results were most gratifying and much was accomplished. Over 500 prospective mothers were interviewed and advised how best to meet their new problems of living. The response from the people was pathetic, showing how great had been their need of guidance.

The women were found by securing from the Mairie the list of those who had applied for an "allocation"; by establishing a liason with the maternity hospitals of the neighborhood to secure names of women registered in their consultations who lived in the quarters where prenatal work was being conducted; by establishing friendly relations with the "sages femmes" of the neighborhood and by helping them to give their patients better care; by references from such other agencies as the Rockefeller Commission and Childrens' Welfare work and by one woman bringing another to the consultation. Through these agencies about 200 women came to the prenatal consultations during the first six months.

An organization was formed to carry on the medicosocial work installed in the hospital and an attempt was made to form a society of social visitors who would be capable of teaching the mothers the proper methods of caring for themselves, of making preparations for the birth of the child and giving other information necessary for persons in their condition.

French Campaign against Tuberculosis.—French methods to combat the spread of tuberculosis, which had gained a strong foothold in the country, were practically nullified by the war until the American Red Cross came to the aid of the people.

Through the agencies of the organization, there is now a capacity for 1,983 bed patients in the tuberculosis hospitals in Paris and outside of Paris there are accommodations for 5,610.

The Bureau of Tuberculosis is working in close conjunction with the Rockefeller Commission for the Prevention of Tuberculosis in France. The total number of beds assisted by the Red Cross Bureau of Tuberculosis amounted to 24,185. They were aided to the extent of 3,287,417 francs and relief was supplied to the extent of 794,447 francs.

An appropriation for a Serbian Hospital in Paris has been made because it was found, after examination, that twenty per-

cent of the 200,000 Serbs studying in the country were tuberculous.

Canteen Schools Established in Lille.—Canteen schools have been established in many French cities, by the American Red Cross. This innovation was first begun at Lille, where hundreds of refugees passed through. Practically all the children were undernourished and many of them had contracted tuberculosis or were in a susceptible condition. At these schools, the pupils were given the kind of nourishment that they needed.

Public-health doctors and nurses were sent to the schools by the Red Cross and more than 19,000 children were examined by them. This was about two-thirds of the population remaining in the city!

Every doctor and nurse who took part in the examinations received a letter of thanks from the mayor of Lille.

Red Cross Supplies Nitrous Oxide Gas.—The American Red Cross supplied great quantities of nitrous oxide gas to the American hospitals in France. To the United States Army hospital 699,429 gallons were sent, to the Red Cross hospitals 495,629 gallons and to different hospitals 251,110 gallons, between September 1917 and October 23, 1918.

Nitrous Oxide was first introduced into Europe by Col. Geo. W. Crile at the American Ambulance Hospital at Neuilly. The British learned the technic and used it in their dressing stations.

The Red Cross ordered a complete plant for the manufacture of Nitrous Oxide gas from the Ohio Chemical Company and this was established at Montreau, about fifty miles from Paris. A Frenchman, experienced in the making of the gas was secured to direct the work, the government permitting his release from the army.

The especial effects of the gas are said by surgeons to cause no lowered vitality, less toxemia, less post-operative respiratory complications and the patient enjoys a quick return to consciousness.

Conditions Improved in Balkans.—Conditions have improved in the Balkan states, according to Lieut. Col. Henry W. Anderson of Richmond Va., who is directing the work of the Red Cross in Roumania, Serbia, Greece, Montenegro, Albania and Bosnia-Herzegovina.

The improvement is due to the work of the Americans who have distributed medicine, food and clothing among the starving and naked people. Upon the arrival of a Red Cross worker in a town of 390 persons, only two well ones were found. Hospitals on the Danube were found to be without sheets, blankets, mattresses or drugs and the only food was musty beans. These hospitals were cleaned and stored with the necessary equipment, clinics were opened, and kitchens were established.

ADVERSE VIEWS ON THE RED INDIAN*

My experience with the Indians is confined to the Pitt River tribe, but, with actual contact with them; and the result of this experience is, that an Indian is an Indian, no matter how much you educate him or do for him. Certain instincts are born in him that education and cultivation will not remove, so that, at the first opportunity, he will return to his native habits and mode of living. I am now speaking of the majority of them, of course, and not of the few scattering ones that may, and do, retain some of the white-man's ways that have been drilled into him at schools.

You speak of them being government-charges. One can answer that, Yes or No. Most of the time, No. And the Indian is smart enough to know this and to take advantage of it, and it makes him difficult to handle satisfactorily in any direction, except in that of letting him alone.

Ninety-five percent of them object to the white man's meddling with any of their affairs aside from giving them employment when they get hungry enough to think that they must work a little in order to get something to eat.

Personally, from what I have seen of them through actual contact with them, I believe that the Indian would be far better off, if he were made a citizen of the United States rather than being a charge, and if he were allowed to follow the dictates of his own will about all of his own affairs in regard to his family and property. By being a citizen, he could be managed far more satisfactorily to himself, as well as to the public at large.

There is a natural, inborn hatred in every tribe toward every other tribe, and a certain superstition that has been handed

*Commenting upon the editorial on "U. S. Indian Medical Service," this journal, June, page 399.

down, and which nothing can eradicate, and, as the government-schools are founded upon our way of thinking and they throw together the children from several tribes in one school, you can plainly see why the government is not making a success of what is like mixing oil and water. You can get a sort of emulsion as long as you continue stirring; but, as soon as you stop, you have your water and oil back again, but, not of as good quality as when you started. This, I believe, will apply as well to the hospitals as to the schools. The majority of the Pitts are infected with one of the following conditions: tuberculosis, gonorrhea, trachoma or syphilis, in the order named. And, in order to manage any of these diseases with any semblance of success, you needs must have absolute control of the patient, which is impossible in the case of an Indian, since he is neither a state-, county- nor government-charge, when you try to get absolute control over him. And, as he is ignorant and superstitious and by nature hates the white man, you wind up by not doing him any good, besides gaining the ill will of all of his family, as well. If you put him in the hospital, he resents it and will leave on the first opportunity and go back to his filthy tepee.

Among the Pitts, about 70 percent of the children born die, before the age of 10 years, from tuberculosis in some form or other. Still, when you go among them and see the way they live and sleep and their way of treating the sick, you wonder how any of them do manage to live as long as they do.

It is pleasant to read some of the flowery things written by faddists on the "noble Redman," or by some novelist who has glimpsed them from the window of a cozy Pullman sleeper, or ensconced in some well-regulated hospital or school. However, when you go into the Indian's private home and view him at short range and learn to know him by personal contact, you will get a far-different idea of the copper-hued gentleman. And, in your personal contact with him, you will find that the one that has been educated and returned to the tribe's camps, is by far the meanest, sneakiest, filthiest Indian in the lot. And, I mean, in any way that you want to consider him. I have had no experience with reservation-work, but, from what I have seen of the Klamath and Piutes that come here to gamble and otherwise to kill time, several times each year, I should say that all Indians look alike to Willy.

I am firmly convinced that, the sooner the white man gets next to himself and takes his nose out of the Indians' business, the better off both of them will be. All of the nice articles that tell you about what wonderful things the white man is doing for his "noble red brother" look fine in print; but, on close inspection, will prove only soap bubbles, and not so tremendously big at that. Your compensation is as nothing for what you have to contend with and the unsatisfactory way in which you have to treat the sick among them.

They will all go and see the white doctor while there is not much the matter with them and they think that they are getting something for nothing; in other circumstances, they go to their own medicine-man for his old Indian ways, and in which they have more faith than in the ways of the paleface doctor. I once knew two Indians here that were well educated, but, who, when they got pretty well along with tuberculosis, went back to the Indian doctor, shut themselves up in their filthy smokefilled tepees, to receive the coote-medicine, the rattlesnake medicine, singing, sucking, and so forth, that they practice, besides making every night hideous with their noise, until the patient goes to his happy hunting-ground, which is always the case when they get consumption.

There is an old saying here among the old settlers, and you will find it a very true one, running this way: "It is no trouble to make an Indian out of a white man, but, it is impossible to make a white man out of an Indian."

C. M. Tinsman.

Adin, Calif.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Actual and the Ideal

[*Continued from September issue, page 667.*]

CULTURE is commonly regarded as a result of education and environment, and there is a culture of that kind; however, it is a fictitious, superficial resultless copy—an appearance without the soul-satisfying reality, the shell without the meat, for, education and environment are effects not causes. True culture comes nearer lack of education; for, education in the usual sense is merely an acquired ability to attend to one's material affairs gracefully in the eyes of the world; is aggressiveness, resistance, under false colors; the velvet paw with the sharp claws beneath; directing the efforts of the possessor solely to effects rather than to causes. Hence, the hollowness and insincerity of "good society." But, true culture, being busy with causes leaving effects to follow on trust, never has occasion for aggressiveness, nor resistance.

The man of the one kind of culture says, "The world is vulgar and prone to mistakes and I fear its opinion so much that I shall make every effort to appear well in its eyes, even sacrificing my ideas of right to do so"; and so lives cynically, wearisomely, in constant conflict with the shadows of his own ingnorance. The man of the other kind of culture says, "I know the world and, therefore, love it." And, the difference between these two is the difference between strength and weakness between the ideal and its shadow, and it shows so in the lives of each.

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The true education, the true culture is that of the soul, of the ideal, which the senses and environment follow as sheep follow their leader—docile, helpless, thoughtless nonentities, so many finger-posts merely, showing which way the master-soul has taken and how far it has proceeded.

If we will reverse, in our minds, the progress of the sheep, imagining the followers to be in the lead, the leader in the rear, we shall receive in the confusion that ensues a broad hint of the reason of the world's unhappiness. Our frantic efforts are uncalled-for. There is a better way.

It is, however, no more the fear of ill than it is the education of the senses that produces the cultured, happy man. Culture, being trust, excludes fear, knows it not at all. It lives for itself, of itself, because it is beautiful to live. It is spontaneous, as the sun is or a flower, and exists and diffuses itself, because that is its nature. Its reward is within itself. It is invulnerable alike to opinion, misunderstanding, and vulgarity. It makes its own laws, which, nevertheless, do not conflict with those other and grosser laws made by man for the would-be protection of fearful society, but, furthers and perfects them so far as itself is concerned. It answers the question before it is asked, conquers the evil before it presents itself, is prevention rather than cure; and, if imitators of it arise, as in nature they must (for, wherever, the sun beams on earth, there close by creep innumerable shadows), it attempts not to detract from them, but, to mold them by example into beautiful realities. "I am a priestess for prayer, not, for execration," said Theano, when she was called upon to denounce Alcibiades.

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The history of philosophy, of the arts and sciences, and of men and nations for six thousand years is the story of the struggle for supremacy between man and his environment, to make what I am, dominate what I see, to render subject and object one. And since the aphorism, "Unto the pure all things are pure," has been sung low and sung high into the ears of every nation and every generation from the time the human race first forsook its cradle in Asia, it seems more than passing strange that even now there can be ordinarily intelligent men who still puzzle themselves with the same old questions, "What is

truth?" and "How may the object be made to harmonize with the subject?"

What says the Vanaprastha? "Immutably, my children, the object reflects the subject: a spotted sun casts a spotted light." If, then, the object seems to us inharmonious, evil, what can the cultured say but that the remedy is plain? For, culture, which is love, which is trust, answers this question in the aspiring soul today as it did nineteen hundred years ago in Palestine, as it had so frequently done before then in other nations and individuals, and as it always will do in all times. The inquiry is, how to arrive at such a culture as this.

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When Zeno put this question to the oracle, he was told that he should inquire of the dead, and by that system of anthropomorphism which is the basis upon which humanity as a species rests, this answer is generally conceded to have meant the reading of books written by the thinkers of the past; and perhaps no belief is more widely accepted among civilized nations than that the culture, wisdom, and salvation of mankind lie in reading. Nevertheless, we often meet persons of considerable reading who are among the most dissatisfied and unsuccessful of men, and we might almost say among the most ignorant as well. Indeed, that reading is not the sole essential, Chaucer hints, wittingly or unwittingly, when he says,

"Eke Plato seith, whoso that can hime rede,
"The wordes mot bee cosyn to the deed."

For, he does not affirm that the reader will act conformably with the advice of his book, but, that he *may* do so. Bacon says, "The studies pass into the manners"; and that is true in the sense intended. But, men who follow the same studies do not all have the same manners, for, it is the man who colors the study, not the study the man, as the painter, not the subject, makes the picture. Who would not rather own a grindstone painted by a Raphael than a "Transfiguration" by an ordinary artist? In the highest and, therefore, the true sense, it is not words that convey meaning to men; it is men that convey meaning to words, each according to his intelligence. Bacon, himself, included the best and highest-ideaed books in his own study, yet, he is the unblushing author of inconceivably blind, impure, and misery-entailing advice and his life was an incarnated hypocrisy and full of mental suffering. The story of "Paul and Virginia," which has drawn tears of love and sympathy from the grimmest of us, was written by one of the most impure of men, if we may believe history.

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As a matter of fact, nowhere is it more apparent than in reading that we see but that which we have within us to see. Not only may that book which is a delight to one man be dull and wearisome to another, but, two men may detest the same book for exactly opposite reasons, reasons which, of course, each believes to lie in the book, not in himself. Alexander and one portion of the Greeks held the Iliad in the same esteem in which other nations hold their respective bibles, while another portion of their countrymen considered it either absurd or blasphemous. To some readers, it seemed extremely ignorant to say that Pallas-Athene, goddess of wisdom, was born, armed and armored, from the head of Zeus: to others, it seemed the most natural thing that, by employing a beautiful trope, wisdom in its perfection should be said to have its source in divine intelligence. Jove's love-affairs were, to some, scandalous and impious: others saw in them the thoughts, passions, and attributes through which God brings forth certain results—as, for example, the Horæ were the children of Zeus and Themis; meaning that God and Justice bring forth the seasons.

In short, there have been from earliest times two classes of readers, the one exalting things above ideas, form above soul, therefore, never being able to understand poetry; while the other is the reverse. Since Plato and Aristotle in Greece (and long before their time in Asia,) these two classes of readers, and writers as well, may be traced in an unbroken line down to our own day, running side by side and "foot and point and eye opposed" in all questions of the wellbeing of mankind. And, by a certain vortical law of thought, well known to psychologists and superficially named "paradox", Plato, who would banish poets from his "republic", stands as the head and front of all true poetry, while Aristotle, his pupil, is the first physiologist and the father of the opposition.

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It is plain, then, that a satisfactory list of books for universal perusal must be an exceedingly short one; for, what one portion of mankind understands and accepts,

the remainder misunderstands, berates, and refuses. And this is so despite the fact that every man has within him the germs of both sides of the question—is both an idealist and a materialist, now the one and now the other trait springing into evidence, according to the individual measure of culture—, for, one side or the other must largely predominate. And this gives the man his color which he injects into his life as well as his reading. Any naturally refined and strongly good person, even though his opportunities for reading had been exceedingly restricted, would be able to find the beauties of Jamblichus, Plotinus, and Porphyry, while the aggressive man, even though he were a scholar, would see there much confusion and mystery and scarcely anything worthy of his approval.

The best books are, by the nature of things, best understood by the best men, regardles of book-culture. The only truly valuable books among the lists commonly recommended are those which, on the plan of "Don Quixote," "Gulliver's Travels", "Rasselas," "Paul and Virginia," "Vicar of Wakefield," and the many other classics, carry useful hints and lofty truths allegorically disguised in the common language of the heart. The gross human eye can not look directly into the splendid sun, but, may gaze through a medium, such as colored glass. Shakespeare, by the most wonderful suppleness and facility in fitting words to ideas, furnishes this medium all the time. The popularity of this class of books lies in their wise union of the commonplace with the ideal: earth is insensibly wafted heavenward and dull mortals are ravished by sudden glimpses of the celestial abodes. The idealist feels with grateful affection the presence there of a kindred soul, for whose existence he fervently thanks God, and the materialist is pleased and touched to find there put into understandable language those very thoughts which he had often wondered whether any but himself had ever held and which he had found to be beyond any poor words of his own. To recommend Homer or Dante or Milton, or Hafiz, although the same thoughts are in them, to one of this latter class, would be to inspire him with grave doubts of your sanity or at least of your taste; for, the more he reads them, the more he feels convinced that they are nothing but balderdash. Indeed, it is not unlikely that he is the very man who invented the term "balderdash," applying it in derision to the productions of Balder, the Norse spirit of poetry.

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It is obvious, then, that all men that have read the same books are not necessarily equally cultured, equally wise and happy. For, certain truths must be known or felt before certain books are read, in order that one can receive from them their high benefits; and these truths cannot always be had by consulting a specified course of authors. For example, although some familiarity with Greek mythology is desirable, even necessary to most people, in order for them to enjoy Homer as he should be enjoyed, it by no means follows that he who most studies books of mythology will find the most delight and profit in reading the Iliad and Odyssy. For, before mythology, something else is required, and something else before that, and so on, down to the very foundation of a man's being, when it is found that all understanding, all delight depends ultimately upon the individual himself—whether he has fitted his soul to understand this truth, or that truth, instead. An artist cares nothing for machinery, but, all for art; the machinist cares nothing for art, but, all for machinery. If each will cultivate that for which he has the greatest love, leaving other things for those who, in their turn, are especially fitted for them, success is certain. In the same way, he who reads those books that naturally are called for in the life he is living and which will infallibly present themselves always at the right moment, will, as Doctor Johnson says, become learned before he is aware of it. And this is not because the reading instructs, it is because whatever we do naturally, without straining, is rightly done and will produce its legitimate results.

He who does not love reading wastes, if he forces himself to read, that valuable time which he should be devoting to that for which he is naturally fitted and which he can cultivate with pleasure and profit both for himself and the world. To read in order to appear well-read, is useless. No person who does that can appear well-read to the seeing eye. It is as if you were to enter your life-occupation through force of circumstances or through alien advice, instead of through your own deliberate and intelligent choice, in which case you stand one chance of a certain feeble success

against several hundred chances of uselessness and misery.

It is true that the united wisdom of the ages has pronounced certain books indispensable to culture, including, among the many, Homer, Plato, Xenophon, Aristotle, Aeschylus, Herodotus, Plutarch, Tacitus, Livy, Dante, Cervantes, Shakespeare, Goethe, Carlyle, Emerson, Buckle, Taine, Max Mueller, and all good readers come to these sooner or later; for, all roads lead to them, and in them are contained the history, wisdom and beauty of the universe. However, for the reasons already given herewith, not all men read them with equal pleasure and profit, and it is quite as true that some of the most highly cultured and, therefore, most happy and useful of men have been but indifferent readers.

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Doubtless the first rule to observe in all reading is, to try to understand the author in the sense intended and to get what substance there may be in the book, forgetting what seems, to you, to be chaff. If it is not chaff and you are mistaken in thinking it so, you will, certainly, find out that fact when you have become fitted to do so—and never, by even the most strenuous efforts, before then; while, if it is chaff, any time devoted to it, even to destroying it, is wasted. If left to itself, it will blow itself away. The second, and perhaps the only remaining, rule is, to read nothing but that which can be read with pleasure. For, as Shakespere says;

"No profit grows where is no pleasure ta'en;
"In brief, sir, study what you most affect."

This broad, deep, most vital of truths can best be made plain by a consideration of the writers themselves.

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It will be admitted freely, I think, that the vast mass of our present-day literature is being produced by four classes of authors: first, quantitatively speaking, those who write for money; second, those who write for money and fame; third, those who write for fame; and, fourth, those who write with a sincere desire to benefit the world.

However, the real literature, the word that will wake the songbirds in the understanding heart for all time, is, perhaps, altogether the product of the mind that writes for no ulterior object, but, simply because the writer has something to say which, although it may say but little, and that little is put forth spontaneously, is a necessity of growth, as a tree puts forth its fruit. Such a writer has no high hopes of reforming anybody; may be said to see nothing that needs reforming. The tree bears, not to feed men, but, because it is its nature to bear; let those who like or who can help themselves to its fruit. Such a writer can know no disappointment in the results of his work, for, his reward is in the doing. Yet, he stands upon no egotistic pedestal, talking down to people. He knows humanity and loves it, is part and parcel of it, and mingles with it as the scent of the violet lingers among the stubble of the field, the violet that loves to own its common birthplace with the dull rocks and the bitter weeds. For, is a rock or a weed of less importance in the divine economy than is a violet? No, unless the rock and the weed invest their sister, the violet, with a fictitious and altogether visionary supervalue, deeming the latter something that they themselves are not, while forgetting that they, also, are something that the violet is not.

The hold upon men of such a mind lies in the fact that it is universal, in all men, and only needs cultivation in order that it may spring into evidence, even through the coarsest soil of rugged crime-seamed features or other degradation. It is the light that illumines every soul born into this world. Men who have but little cultivated their light look at first with surprise or flat denial upon the full glow of their brother; his look is an untruth to them, as the Pharisees, looking at Jesus, saw Beelzebub; but, if their gaze is sustained, is buoyed up by the desire to know the truth, above all things, unswerved by the weak things of the mind, selfishness, ridicule, their own light will grow and grow, until it lightens the page with a glow as divine as that by which it was written. And, such a writer has at last come to his own in that reader's mind.

[*To be Continued.*]

Among the Books

THEWLIS: "GERIATRICS"

Geriatrics, A Treatise on Senile Conditions. Diseases of Advanced Life, and Care of the Aged. By Malford W. Thewlis, M. D. With Introductions by A. Jacobi, M. D., and I. L. Nascher, M. D. St. Louis: C. V. Mosby Company. 1919. Price $3.00.

The practice among patients in advanced life still is sufficiently new for many physicians to have overlooked the fact that this "contrast", as it were, to pediatrics has in recent years been raised to the dignity of a specialty, namely through the efforts of Dr. I. L. Nascher, of New York, whose textbook on geriatrics was reviewed in CLINICAL MEDICINE for June 1917.

While Doctor Nascher's work by no means is superannuated or can be superseded, the appearance of the most recent treatise on this important subject, by Doctor Thewlis, is to be greeted with acclaim. Doctor Thewlis has been, for years, a supporter of Doctor Nascher in his aims to bring to the consciousness of physicians the dignity and importance of geriatrics as a specialty of medical practice. He has been a close student of this branch and his book rather gains by being held somewhat on the plan of the case history series.

The author, while discussing the various problems of special importance in the treatment of aged patients, likes to cite cases from his personal experiences and then to discourse upon the problems raised thereby. This undoubtedly sustains the interest and relieves the tedium of study. Doctor Thewlis' book is full of interesting and useful material. Only on the day of writing this review, we have received some exceedingly valuable information and suggestions concerning a case in hand.

Incidentally, the Reviewer would like to say that not only in the book before us but also in Nascher's work and, in short, in most bibliographies on the subject of the diseases of old age, he has failed to find a reference to an article by Dr. Benjamin Rush. It has become the proper thing to go back bibliographically to this noted American physician; therefore, Doctor Thewlis undoubtedly will not object to the Reviewer's mentioning this reference. In a "new edition" (1797) of "Medical Inquiries and Observations", on page 293 of the second volume, Doctor Rush presents "an account of the state of the body and the mind in old age with observations upon its diseases and their remedies". This is an exceedingly interesting article as indeed are all "inquiries and observations" of Doctor Rush's, and it is well worth a visit to the medical library.

The article is listed in the Index-Catalog of the Surgeon General's library.

"CARRY ON."

The July issue, Volume 1, Number 10, of *Carry On,* is announced as being the last issue of this bright and helpful little periodical, or, at least, the last issue under its original editorial staff. While the chairman, Colonel Frank Billings and the associated editors have received their honorable discharge from army service and while, therefore, they have severed their direct connection with this particular undertaking, it is announced in the valedictory editorial that competent medical officers with many years of service have been selected, by the Surgeon-General, to continue to direct the work of reconstruction of the disabled soldiers.

Many of the officers and enlisted men, nurses, and aides that have been conducting the work in the hospitals will remain in that service until the promise of the War Department to the disabled soldiers is fulfilled; namely, maximum restoration for all. But, it is questionable whether the reduced force will be able to continue the publication of *Carry On.*

We sincerely hope that means will be found to carry on the little journal in

question. It always was so full of enthusiasm and encouragement, so replete with great good sense and vim that its discontinuation will be acutely felt by its readers.

"PRACTICAL MEDICINE SERIES"

The second volume of the 1919 issue of *The Practical Medicine Series* is devoted to general surgery and is an unusually interesting one. This is but natural because of the many practical experiences in surgical technic during the war and because of the copious literature which has been published during the last year.

The Practical Medicine Series is published in eight volumes per year, each volume being complete on the subject of which it treats for the year prior to its publication. The series is issued by The Year Book Publishers, 304 S. Dearborn St., Chicago, at an annual subscription price of $10.00 for the eight volumes, while individual volumes may be purchased separately at varying prices. The cost of the present volume is $2.50.

"PROGRESSIVE MEDICINE."

The September issue of *Progressive Medicine* presents much interesting information. In the first review, on diseases of the thorax and its viscera, there is, for instance, a brief discussion of the importance of the food factor in diseases of the chest organs. Here, the problems of the vitamines is taken up. The chapter on pulmonary tuberculosis contains an account of Wright's latest suggestion as to nonspecific immunization and also a very informative abstract of Percy Kidd's Harveian Oration for 1918, on the medical history of the "Problem of Phthisis." It is well occasionally to look back and take account of what has been accomplished. For that reason, historical notes and articles frequently are of great value.

Among the other chest diseases, we note abstracts of articles on the pulmonary sequelae of gassing; on the treatment of irritant gas poisoning; on the blood and bone marrow in certain forms of gas poisoning; on the treatment of acute pulmonary edema (which is of interest especially in connection with last year's "influenza" epidemic), and on many other problems that confront the physician constantly.

Progressive Medicine is a quarterly digest of advances, discoveries and improvements in the medical and surgical sciences. It is edited by Dr. Hobart Amory Hare, assisted by Dr. Leighton F. Appleman, and published by Lea & Febiger, Philadelphia and New York, at the subscription price of $6.00 per annum.

"COMMUNITY FOR ARRESTED CASES OF TUBERCULOSIS"

The Agricultural and Industrial Community for Arrested Cases of Tuberculosis and Their Families. A study. Issued by the Federal Board for Vocational Education. Washington: June 1919.

This is Bulletin No. 32, issued by the Federal Board for Vocational Education, at Washington, D. C., and deals with a problem that can not but impress all physicians with its vital importance. It has been prepared by Dr. H. A. Pattison, under the direction of the Advisory Committee of the National Tuberculosis Association, as a contribution of the study of problems relating to the rehabilitation of the tuberculous. Copies of this Bulletin can be secured from the Federal Board for Vocational Education, Washington, D. C., and this board has published also a number of other bulletins that are well worth careful study.

MAYO CLINICS PAPERS.

Collected papers of the Mayo clinic. Edited by M. H. Mellish, Volume X, 1918. Philadelphia. The W. B. Saunders Company, 1919. Price $8.50.

This volume of the Mayo clinics papers contains contributions to periodical literature, by 46 associates either of the Mayo clinics or of the Mayo Foundation for Medical Education and Research, Graduate School, of the University of Minnesota. The range of subjects covered is a wide one, embracing, as they do, the alimentary canal, the urogenital organs, ductless glands, heart, blood, skin and syphilis, head, trunk, extremities, nerves, technic, and general subjects. Each one of these is considered in several articles.

It would be useless to enter into the details of the individual contributions;

nor do we have the space for it. Anything coming from Rochester, Minnesota, bears the earmarks of careful and conscientious work. Therefore, it is bound to be helpful.

"THE CRUSADER."

The Crusader is a little journal published monthly (except July and August) by and in the interest of the Wisconsin Anti-Tuberculosis Association.

The issue for September, 1919, contains the pleasing announcement that the Anti-Tuberculosis Association of Wisconsin has succeeded in securing a home of its own and that it has moved into its own domicile which will be known as the Health Service Building, being situated at 558 Jefferson Street, Milwaukee.

The Wisconsin Anti-Tuberculosis Association is a live and active organization. We sympathize with it in its joy at having found a home of its own and we wish for it continued and ever increasing success in the great good that it is doing.

FRIEDENWALD AND RUHRAEH: "DIET."

Diet in Health and Disease. By Julius Friedenwald, M. D., and John Ruhraeh, M. D., Fifth edition; reset. Philadelphia. The W. B. Saunders Company, 1919. Price $6.00.

Dietotheraphy, which, probably more than any other factor in the treatment of the sick, has been subject of fads, and, often, fancies, is, at last, rising out of the obscuration of ill-considered and onesided views. This problem is being studied more thoroughly than it formerly was, and, in consequence, dietetics is coming to be available with greater reasonableness and better promise of success.

However, it still happens all too often that physicians are exceedingly and painfully vague in their dietetic prescriptions and that, evidently, they possess but very hazy ideas concerning the articles of food to be ordered under certain conditions of ill-health. For this reason, the careful and persistent study of a recent textbook on the subject is to be recommended, or, indeed, urged, not only as expedient, but, rather, as necessity.

Since the Reviewer received a copy of the present edition of this standard treatise on diet in health and disease, a few months ago, he has had frequent occasion to consult it for information on one point or another and, he is happy to be able to record, that he never failed to obtain highly satisfactory and complete enlightenment. This latest edition of "Friedenwald and Ruhraeh," is, easily, the most complete and satisfactory work on the subject with which the Reviewer is acquainted. It actually constitutes a *theory and practice* of dietetics and contains a remarkable amount of information.

It would not be just to omit expression of our appreciation of the excellent index, covering over thirty pages, which, naturally immensely increases the value of the work. A good index is an absolute necessity for any book of reference. Yet, how very often, alas! it's preparation has been done in a woefully haphazard manner. All the more reason to commend a really good index when one finds such a one.

DUKE: "ORAL SEPSIS."

Oral Sepsis in its Relationship to Systemic Disease. By William W. Duke, M. D., Ph. B. With 170 Illustrations. St. Louis. The C. V. Mosby Company. Price $2.50.

"In the opinion of the author," the reader is told, "the discovery of the relationship which frequently exists between the various chronic infections and systemic disease marks a great practical advance in the science and therapy of medicine.

"For centuries, it has been evident to physicians that certain acute inflammatory lesions give rise to systemic disturbances. One of the main advances of recent years, therefore, has been the disclosure of the fact that small and apparently innocent infections, while giving rise to little or no local disturbance, still may be the source of serious generalized disease.

"For the proper care of medical cases, the hearty and intelligent cooperation of the dentist is absolutely essential. In the author's experience, it has been found that the teeth should be taken into account in nearly every medical case. For this reason, the welfare of the affected individual demands that the dental surgeon understand and appreciate the problems and aims of the physician, and that he be will-

ing, at times, to sacrifice apparently useful teeth for the sake of the patient's general welfare. Consequently, the main purpose of this volume has been to assemble facts which show, first of all, that dental sepsis is an extremely common condition, and, second, that it may cause serious systemic disorder in many different ways."

It has often seemed to the Reviewer that many authors would be able to write far better reviews of their books than is anybody else. In this instance, the *raison d'être* of the volume before us certainly is excellently accounted for in the quotation from the preface. It needs only to add that the work which the author has set himself to do has been well accomplished. The relation of oral sepsis to systemic diseases no longer is theoretical. It has been abundantly proved. Therefore, it is up to physicians to study carefully the problems here concerned.

MUIRHEAD: "MATERIA MEDICA."

A textbook of Materia Medica for Nurses. By A. L. Muirhead, M. D. Illustrated. St. Louis. The C. V. Mosby Company. 1919. Price $1.50.

A little textbook that gives, in twenty-four brief chapters, all the information concerning materia medica that a nurse requires to fit her to dispense intelligently remedies prescribed by the attending physician. The main classes of remedial agents are well described and the selection of the drugs, while necessarily limited, is representative and useful.

The Reviewer comes across a passage (page 143), to the effect that iron has given best results in a pathologic condition called chlorosis, and often met with in adolescent girls. To this unqualified statement, we take exception, and will quote from Trousseau's "Clinical Medicine" (1872, p. 97):

"When, in a girl apparently chlorotic, languid, and devoid of energy, the iron rapidly reawakens the muscular power and the appetite, while, at the same time, it notably accelerates the pulse and gives rise to a sort of feverish excitement somewhat analogous to intoxication, there arises reason to fear that a continuance of the iron will induce an outburst of fever accompanied by local disorders frightfully rapid in their progress." Even in this day, chlorosis, or, the anemia peculiar to young girls, often is diagnosed on insufficient clinical grounds and then the time-honored iron-treatment is administered, often with unfavorable outcome.

Trousseau's observations, made fifty and more years ago, often are forgotten, and with disastrous results. According to that authority, these cases of "false chlorosis" largely are, in fact, tuberculous in nature and exceedingly prone to become acute.

But, we are reviewing a book on materia medica; and we repeat that this one fulfills its purpose admirably.

BROWN: "PRINCIPLES OF NURSING."

The Principles of Nursing. By Charlotte A. Brown, R. N. Illustrated. Philadelphia. Lea & Febiger, 1919. Price $1.75.

Here is an excellent little book that, while claiming recognition only as giving elementary instruction, nevertheless, fully covers the general fundamental principles of nursing. The Reviewer has been greatly interested in perusing this little book and takes pleasure in recommending it to physicians, as worthy to be handed, for preliminary information, to young women that may desire to take up nursing as a profession. Also, it will serve those "practical" nurses who, prevented by circumstances from undergoing regular training, yet, desire to fit themselves as well as can be to obey the physician's directions intelligently.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6452.—"Dichloramine-T in Chronic Cervicitis." M. G. C., Missouri, is "wondering whether dichloramine-T would be serviceable in chronic and also in acute cervicitis and endometritis.

Many gynecologists, at the present time, are using dichloramine-T with excellent results in the conditions named; however, the limitations of the drug must be borne in mind and, as a matter of course, after the infection has been overcome, lacerations and erosions must be definitely treated.

In endocervicitis, you may have to do either with a primary or a secondary infection. It must be borne in mind that gonorrhea frequently attacks the cervical canal as a primary infection, without, at first, involving other parts. The relations existing between the cervix and the vagina especially expose the cervical canal to various forms of infection, and the slightest alteration in the normal condition of these parts, such as congestion or traumatism, causes the bacteria to multiply rapidly and become pathogenic. Moreover, when infection occurs, it is overcome only with extreme difficulty, as the germs are ensconced in the glandular crypts and remain there in a more or less active or latent condition.

Evidently, under such circumstances, the constant application of some such powerful bactericide as dichloramine-T in an oily medium must prove beneficial. It always is advisable, before applying dichloramine-T, first to douche the parts with a solution of chlorazene at or just below the body-temperature and then to dry them very thoroughly with cotton swabs.

QUERY 6453.—"Low Urea and Indicanuria." J. H. F., Pennsylvania, writes: "Kindly tell me your opinion about low-urea content, and also about the presence of indican and streptococci in the urine of an office man, of forty-five, who shows signs that seem to indicate locomotor ataxia. This man uses much milk (at present buttermilk) and tobacco sparingly. He has a slight defect in his gait (slight ataxia); there is partial loss of the reflexes. He is slightly emaciated."

As, of course, you are aware urea represents the last terms in the series of oxidized nitrogenous bodies and its source in the urine is a twofold one—tissue waste and digested food. The greater part of nitrogen in food appears in the urine in the form of urea. The average daily amount of urea excreted by a healthy man subsisting on a mixed diet may be estimated at 33.8 Grams, or about 0.015 to 0.035 Gram an hour for each kilogram of body weight. The standard of urea excretion generally accepted in clinical work is, 2 percent, or 10 grains in an ounce. The organs chiefly concerned in the production of urea are, the liver and spleen and the maximum amount is excreted on a meat diet with a minimum of vegetables.

In liver and kidney diseases and in several of the cachexias, the amount of urea is diminished. It is markedly increased in fevers, inflammatory disorders, and under intense muscular or mental strain.

Indican is derived from indol, a product of intestinal putrefaction of proteids. Increased intestinal putrefaction increases the amount of indican eliminated by the kidneys, and thus acts as a renal irritant. It frequently gives rise to the presence of albumin and casts in the urine; to such a degree, indeed, that many cases of indicanuria have been diagnosticated as Bright's disease. Indicanuria is marked in

all cases in which intestinal digestion is deranged, as, for instance, in typhoid fever, enteritis, gastritis, dyspepsia, appendicitis, cancer of the peritoneum, diseases of the liver and pancreas, chronic constipation, and so on.

As you will readily understand, therefore, a low urea output and the presence of indican must be accepted merely as evidence of a deranged metabolism. Hence, if possible, the basal condition must be recognized and corrected.

Query 6454.—"Tachycardia." G. S. Wisconsin, reports the case of a 52-year-old widow, "somewhat slim, who still menstruates regularly every three weeks, but, suffers from severe attacks of tachycardia, the cause of which is obscure. She has seven grownup children. Her father died of tuberculosis; the mother died when seventy-three years old, cause of death unknown. The patient had pneumonia four years, and a first attack seven years ago. The cardiac attacks come on irregularly and last from one to three days, the pulse running at 130 to 140. The attacks do not, as a rule, come on at a menstrual period, but, mostly after some exertion, as, for instance, working in the garden. Her bowels are regular, urine is normal; she does not drink much coffee. At the last attack, she suffered much pain about the heart. She has consulted several doctors, with little benefit. There is a slight diastolic murmur in the right side of the sternum.

"Digitalis does not lessen nor shorten her attacks, neither do strychnine, nitroglycerin, or digitalin or small doses of morphine with atropine. There must be some irritation of the vagus. Can you give me an idea what may be the cause of these attacks and what can be done to control them?"

We wish it were possible for us to offer some positive diagnostic and therapeutic comment in the case of tachycardia briefly described by you; but, unfortunately, paroxysmal tachycardia is a rather remarkable affection, and, while not particularly common, is encountered often enough, especially among women of middle-age, to have attracted a good deal of attention from clinicians.

In some instances, the pulse will rise to 220 or 230, and the attacks may occur every week or two. Ordinarily, there is a marked feeling of distress and uneasiness, which causes the patient to lie down. Or, the patient may be able to walk about during the paroxysms, the dyspnea being entirely absent.

As you may be aware, Wood reports the case of a physician, eighty-seven years old, who had such attacks at intervals from his thirty-seventh year. For the last twenty years, a drink of ice-water or strong coffee would invariably arrest an attack.

A permanent cure of the essential, or idiopathic, form of paroxysmal tachycardia is rare. The patients suffer for many years. In four instances reported by Bouveret, a fatal termination ocurred. Martius looks upon it as a symptom of acute cardiac dilatation, that appears paroxysmally.

In some cases, the attacks may last for several days and then the heart suddenly "flops," as the patients express it, the rate falling, from 180, to 80 or 90 a minute.

It must not be forgotten that, in some cases, tachycardia is caused by autotoxemia, digestive disturbances or reflex irritation from ovarian or uterine disease. In that case, therefore, we should secure thorough intestinal cleaning out, put the patient on a very carefully selected diet, prohibit active exercise, and give cactoid, possibly in alternation with the valerates.

At the same time, we would make a very thorough examination of the pelvic viscera. Also, you may be astonished at the results that will follow the administration of some such combination as: helenin, gr. 1-12; viburnoid, gr. 1-12; dioscoroid, gr. 1-6; gelsemoid, gr. 1-250; avenin, gr. 1-6; scutellaroid, gr. 1-12.

Query 6455.—"Cyst on Head." J. F. M., Wisconsin, is treating a little girl, four and one-half years old, who has a cyst on the back of her head, and asks: "What can I do for her?"

Before we can intelligently discuss the proper procedure in the case of your little patient, we must know something more of the character of the cyst and the exact location. Naturally, all cranial cysts should be viewed with suspicion, and those in young children, especially when the cyst is situated on the back of the head over

the commissure, must be treated with extreme caution.

A simple sebaceous cyst of the scalp is, of course, very easily removed. However, these growths but very rarely occur in children before the fifteenth year of age.

Dermoids, however, are observed in the young, resulting from developmental faults in the process of closure of the embryonal clefts. They are most commonly observed, however, near the orbit, at the glabella, or, external angular process of the frontal. Ordinarily, they are distinguished from sebaceous cysts, fatty tumors, et cetera, by their situation and immovability, and should be removed early in life. In that case, care should be exercised not to open the dura.

Lipomas are rare as primary growths and usually present as flat, semifluctuating tumors having broad bases. They may be mistaken for dermoids, wens or cephaloceles. It should be remembered that a fatty tumor often overlies certain forms of cephalocele.

Before taking any steps in this case, it is desirable to satisfy yourself thoroughly as to the nature of the growth, being very certain that you have not to do with an encephalocele or even a spurious meningocele.

You will find this entire subject very thoroughly covered in any of the more modern works on surgery.

Whatever the condition, the treatment, of course, is operative.

If you feel that we can be of further service to you in this case, give us all the light upon the subject that you possibly can and send us a photograph showing the growth as clearly as possible.

Query 6456.—"Cystocele?" E. W. L., Ohio, asks for an outline of treatment for vesicovaginal pouch or hernia "just above the urinary meatus; wants description of the surgical treatment; also, what is the proportion of the cases cured? The patient is fifty-seven years old. The hernia is of three years' standing, and has a telling effect upon the nervous system."

It is practically impossible for us to outline fully, in the scope of an ordinary communication, the various operations for cystocele. You state that you desire information about the "surgical treatment for a vesicovaginal pouch or hernia just above the urinary meatus." This, virtually, is an anatomic impossibility, as the vagina could not possibly descend to between the bladder and symphysis.

In cystocele, there is a prolapse of the anterior wall of the vagina, accompanied by a downward dislocation of the posterior wall of the bladder. In the vast majority of cases, cystoceles are caused by a ruptured perineum; hence, the condition is more frequently observed in working-women that have borne one or more children and received somewhat careless attention at the time of delivery. Occasionally, this condition is observed in women that have borne many children without the occurrence of a laceration of the perineum.

Cystocele must be distinguished from anterior vaginal hernia, and a tumor situated in the vaginal wall. A cystocele is tense and elastic when the bladder is full. An anterior vaginal hernia is soft and doughy to the touch at all times. A cystocele increases in size and tension on coughing or straining, as does an anterior vaginal hernia. While a cystocele disappears under pressure, the anterior vaginal hernia does so with a distinct gurgling sound, a vaginal tumor does not decrease on pressure and there is no particular increase in size upon coughing or straining.

The radical treatment of cystocele is outlined in any modern work on gynecology. Ashton's "Practice of Gynecology" deals with the subject very fully.

Palliative treatment aims only to lessen the bladder-symptoms by controlling the degree of prolapse. Sometimes good results are obtained, from a symptomatic standpoint, by means of a pessary, to support the anterior wall of the vagina and push up the bladder. Skene's pessary probably gives the most satisfactory results.

In virtually every case, before employing a pessary, astringent tampons should be worn for a few weeks. Such tampons also act as a mechanical support and afford the patient considerable relief.

Ashton recommends, in addition to the tampons, vaginal douches night and morning, these to consist of a gallon of hot physiologic salt solution, followed by a quart of a hot water containing alum, zinc sulphate or tannin.

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The Flow of Bile

WE are often asked as to what is the best means of promoting the flow of bile in simple jaundice. The answer depends a good deal upon the cause of the jaundice. The old idea, that jaundice is a disease, is dying hard. This writer recalls an instance in his early practice where he lost the patronage of a family because an older doctor most unfairly played upon the popular ignorance on this subject. When the family asked his opinion as to what was the matter with the patient, he promptly answered, "Jaundice," although he knew very well that, in naming what is merely a symptom, he was not making a diagnosis, but, simply was dodging the issue. The writer had taken a day or two to diagnose between gallstones and catarrh of the bile-duct, and the family thought he must be an ignoramus, if he did not recognize jaundice when he saw it.

In the condition known as "biliousness," and in catarrh of the bile-duct or in any condition where congestion is the chief factor, any treatment that will reduce congestion will be beneficial. This is why laxatives salines are valuable. A course of small doses of calomel or blue mass repeated every hour for six doses, followed by a free use of a laxative saline or compound of such, constitutes excellent treatment for this condition.

Lauder Brunton, with his usual clearness and simplicity, goes to the root of the matter. He says:

"The liver has a twofold action—it *forms* bile, which is poured into the duodenum; and it also *excretes* the bile that has been reabsorbed from the duodenum and carried back to the liver by the portal circulation. Much bile thus circulates continually between the liver and the duodenum, while part is carried down the intestine with the feces, and its place supplied by newly formed bile.

"When the quantity circulating in this way is too great to be completely excreted by the liver, it enters the general circulation and produces symptoms of biliousness. These are removed by the socalled cholagogs, which probably act by stimulating the duodenum and thus carrying the bile

so far down the intestine as to interfere with its reabsorption.

"Among the best cholagogs, are the preparations of mercury, which do not increase the secreting power of the liver nor augment the quantity of bile formed by it. Their utility is greatly increased by combination with a saline purgative, which still further clears out the intestine and completely prevents any reabsorption of bile. Other cholagogs, such as podophyllin; rhubarb and aloes actually increase the secretion of bile by the liver. At the same time, they probably prevent its reabsorption in a similar way as mercurials and salines."

As synergists, there undoubtedly is value in leptandroid, euonymoid, chionanthoid, and the bile salts, although this writer has found their action uncertain in some individuals.

The stream of plenty will not flow toward a stingy, parsimonious and doubting thought.

THE SALVATION-ARMY HOME SERVICE CAMPAIGN

During the week of September 22 to 29, the Chicago Salvation Army Home Service Campaign was conducted, with the cordial cooperation of businessmen and women, of professional men and women, of soldiers, and of many others to whom the Salvation Army has endeared itself through its splendid war-service. We are informed that the hoped-for million and one-half was not realized, and that, therefore, the plans for the future, of the Salvation Army, must be modified along rather less ambitious lines. That is a great pity; for, the greatest ambition of this organization is, to be of service. I mean, of actual, concrete, bread-and-butter service, clothes-service, job-service, encouragement-service; in short, of any real, honest-to-goodness service that may be needed. It's not talk, nor merely good advice; it is real, straight, usable service that the men and women of the Salvation Army are giving; and want to give, far more than they have been able to. Therefore, they need, and they deserve, all the help that can be given to them.

Let's see what they want. The purposes of this campaign, which, by the way, is but a part of the nation-wide campaign, are:

1. To provide adequate funds for all Salvation Army activities in Chicago, for one year, including the erection of such new buildings as are immediately necessary for the work.

2. To do away with all soliciting by officers of the Salvation Army during the year (except for the annual "Self-Denial" appeal for foreign missions)—thus enabling them to devote all their time to Service Work proper. [Note that spelling, in capitals, of Service Work. This point appeals to us with particular force.—Ed.]

3. The Home Service Work of the Salvation Army has suffered greatly during the war. This special effort is necessary to reinstate the Army in sound financial condition to undertake all the Home Service obligations for one year. The income of the Salvation Army in past years has not been nearly adequate to meet all its home-service needs. In addition, there have been tremendously increasing calls arising from the popular and effective work of the Army in the war.

There now. Let us remember that this campaign is not only to benefit Chicago, but, that it is a part of a nation-wide movement. Of the fact that the Salvation Army is deserving of all that it asks, there can be no doubt; there are no differing opinions expressed. Since we are of one accord in this point, is it not up to us physicians, as much as it is up to business men, and all other classes of people in the United States, to help, with money as far as we are able; and, then, by word of mouth, by securing the contributions of others?

The work of the Salvation Army concerns physicians closely, and physicians take part, active part, in many of its phases. Therefore, it is our work, also. Let's go.

THE RED CROSS DRIVE

The third roll call of the American Red Cross will take place from November 2 to 11, and the organization then hopes to raise its membership to at least twenty million. If this splendid enrollment can be secured, it will provide the American Red Cross with over twenty million dollars with which to carry on its important work. Considering the scope and importance of the activities of the American Red Cross, the fullest support should be granted to this organization, which not only was instrumental, in its own part, in winning the war but also accomplished much to lessen the horrors of the recent world-upheaval and to

heal the wounds left by it, as far as this can be done.

By all means, let us join the Red Cross as paying members and let us give according to our means, for, every cent that is contributed will accomplish good and will help in some great work.

IF YOU DON'T AGREE WITH US—WHAT?

There comes a good brother who requests us to cancel his subscription to CLINICAL MEDICINE, informing us that he is absolutely opposed to universal military training "under the present capitalistic rule and for the purpose intended by those advocating it". There is much more on the small space of the postal card on which this physician voices his disagreement with our position. The point is, that he decided to give up the journal because it contained an editorial article favoring a movement of which he personally disapproved.

Now, here's a fine state of affairs. Of course, this good doctor has a perfect right to read or not to read CLINICAL MEDICINE or any other journal, as he chooses; also, he has a right to agree or to disagree with any or all of the opinions voiced in the articles printed in it. But, to discontinue his subscription because he disapproves of our editorial opinion on a matter that does not directly concern the professional interests of the physicians—surely, that suggests a degree of intolerance that must arouse one's pity.

It is supposed that every thinking man and woman reads the daily papers and one or more monthly periodicals. It hardly can be assumed that we agree with everything that is printed in these publications, either editorially or with editorial sanction. Would it then be reasonable to condemn these publications simply because they printed opinions at variance with ours? What utter nonsense! If everybody in a family, or in a community, or in a country were to agree on everything, that would by no means constitute the millenium. On the contrary, it would mean utter and hopeless stagnation and inevitable retrogression. It is not only by competition but also through difference of opinion and the attempt to prove one's own position as superior that progress is made. Nor can political problems be solved by closing our eyes to and refusing to hear of solutions and undertakings that are not to our liking. The opinions of others should be accorded the same respectful hearing that we expect for our own and a wide degree of tolerance and letting-the-other-fellow-have his say should prevail.

One of a Million—You!

Volunteer for RED CROSS

Enlist now for the Third Roll Call. Twenty Million members are to be enrolled November second to eleventh, inclusive. Your heart, your hand, your dollar is needed in order to keep the pledge abroad and to fulfill demands at home. Give one week's service to Humanity—It pays your conscience the biggest dividend on Americanism.

It can safely be stated that there is no field for the pessimist in the practice of medicine. This is preeminently a sphere of activity exclusively for the optimist.—Northwest Medicine.

CENTENARY OF THE STETHOSCOPE

During the present year, there is being celebrated the centenary of the discovery of mediate auscultation, by means of the stethoscope elaborated by Laennec, the noted French clinician, whose monograph on pulmonary consumption is one of the classical and truly memorable treatises on this important subject.

In his "Epoch-making Contributions to Medicine, Surgery and the Allied Sciences," Dr. C. N. B. Camac, on page 157, gives the date of the first French edition of Laennec's work as September, 1818. However, in an article on Laennec and his stethoscope, contributed to *The Medical News* for May 20, 1905, Camac says that it was not until 1819 that the long-delayed publication, in book form, of his methods was accomplished, although his method of auscultation actually dates from the year 1816, as Laennec records himself, and his method had really been communicated by

him to a number of medical societies in Paris.

The discovery, that it was possible, by means of an instrument of any kind, to ascertain the exact nature of the respiratory and cardiac sounds and to determine normal conditions and deviations from them, naturally constituted a step forward in the investigation of diseases, more particularly of the chest-organs, the importance of which can hardly be realized. It was not only certain esthetic considerations that led Laennec actually to use a paper tube when being "consulted by a young woman, laboring under general symptoms of heart disease, in whose case percussion and the application of the hand were of little avail, because of the great degree of fatness," but, it was the fact that the chest-sounds can be perceived much more clearly and distinctly than is possible by the immediate application of the ear to the chest. This fact constitutes the notable discovery of Laennec, through which the clinical study of chest diseases and, incidentally, of many other conditions where the stethoscope now is used, has been immensely advanced. It is well to look back occasionally and to realize what those who went before us had accomplished; and to appreciate and acknowledge the debt that we owe them.

Laennec stands out as one of the greatest students of pulmonary consumption. His treatise on the diseases of the chest and on mediate auscultation gave the impetus to a renewed and enthusiastic investigation of pulmonary tuberculosis. Moreover, it was owing to Laennec's observations that the curability of this disease was recognized and it is because of him that its pathology was investigated with increased energy and persistence.

So, then, let us honor the memory of those that have preceded us and pointed the way. Let us, during this year, especially, honor the memory of Laennec, who, himself, a victim of pulmonary consumption, accomplished so much for the benefit of mankind, despite his physical handicap.

Have no fear of any sort or shape, for fear is an adjunct of the minus entity.—"The Magic Story."

WE DO NOT HAVE TO AGREE

Decidedly, we do not have to agree with everything that we print in the way of signed articles in the columns of CLINICAL MEDICINE. Indeed, it happens often enough that we accept articles for publication, and print them, too, with the opinions of which we certainly are not in accord. We are ever mindful of the fact that CLINICAL MEDICINE is the practitioners' journal; it is an open forum before which they may express their views and voice their different and differing convictions.

Take as an example several articles on influenza printed in the "Let's Talk It Over" department. The infectious nature of influenza is denied and, as a logical corollary, the necessity of quarantine is questioned. We, personally, have repeatedly gone on record as being convinced that the disease has a bacterial etiology and out of this the wisdom of isolation follows logically. It is very true that other factors are active, such as atmospheric conditions, and especially, fear, crowding, and serious nervous disturbances all of which manifested themselves during the war. Indeed, we believe that these "predisposing" factors contributed greatly in making last year's epidemic as severe and serious as it was. Nevertheless, the agency of pathogenic bacteria in causing the catarrhal and inflammatory manifestations of the disease is too clearly evident to be denied.

All that, however, can not induce us to deny others, who think differently, an opportunity to express their opinion.

We ourselves are responsible for the opinions expressed in the editorials and also for those in the editorial comments, while, for all signed articles, the authors themselves bear the responsibility, our share being limited to having granted permission for their contributions to be printed in CLINICAL MEDICINE.

INTRAVENOUS MEDICATION

Here is a good subject for a number of useful articles. We should like to know what success physicians in general practice have had with the intravenous administration of certain potent drugs that are applicable in this manner.

We should like to have information on those drugs that can be used intravenously; on the indications for their use; on the technic that was found most successful; on necessary precautions; on the experiences and observations under such treatment. Physicians having experience with the in-

travenous administration of remedial agents might loosen up and tell the rest of us what they have done and what they have seen. Let's have some good articles, please.

As no roads are so rough as those that have just been mended, so no sinners are so intolerant as those that have just turned saints.—Colton.

THE COST OF FAILURE.

It is a common belief, says Samuel Lile, in the *International Journal of Surgery*, for August, that the price of surgical failure is paid only by the patient and relatives and that the operator goes scot free. This is not so, for, the surgeon often pays a heavy price for operative failure or unsatisfactory results. When the surgeon asserts that he is as much hurt by failure as the patient or his friends, there is often more justice in the conditions than anyone will admit.

The public is well aware of the consequences of an unsuccessful operation from the patient's point of view, but practically never so from the surgeon's standpoint. Doctor Lile refers to the fact that no general commanding an army ever underestimated the psychic element in warfare, what is known as the morale, and that it is contended that no army is beaten until it believes itself beaten. That is to say, as soon as an army loses faith in itself, it ceases to be a factor for victory. The same thing must be said of the surgeon. A single failure often brings dire results, the most important and deplorable one being the loss of self-confidence.

Without self-confidence a surgeon is as helpless as an army without confidence. Successful surgery requires extreme vigilance, clear knowledge, perfect self-reliance, careful coordination and supreme presence of mind; while failure to be thus equipped, often but for a brief space of time, may spell disaster. A surgeon's reputation is always at stake and once injured can not be repaired.

All this might have been extended truly to medical men in general. It is one of the many ancient jokes, being repeated constantly, that medical men bury their mistakes and short-sighted people seem to think that with the burial all consciousness of a mistake or failure is erased from the physician's mind. There never was a greater mistake. Physicians, like surgeons, are as keenly disappointed and as seriously injured in their "morale" by failures as are any other workers who are conscientious in their activities. We remember one man, a bright young physician, who refused to give a single further anesthetic, although he was a valued and experienced anesthetist, after having seen three patients die in rapid succession on the table. We remember a tuberculosis physician who for a long time could not bring himself to undertake an artifical pneumothorax after having lost one patient within two minutes after compression of the lung. These are surgical instances. But, we have often witnessed and ourselves experienced the heartburning and futile self-disgust that followed a fatal outcome in a case of disease where one had been confident to bring about a cure. Every physician, of even slight experience, has experienced the same sickening and heart-breaking depression after losing a patient by death whom he had hoped to save.

It is not only the moral cost of failures that physicians, like surgeons, have to defray. Failures usually reflect unfavorably upon the confidence with which medical men are consulted by their clients. Fortunately for us, people demand of us that we shall do our best and usually there are good souls who condone our failures by referring to the inscrutable will of God. Yet, we personally often have our doubts and it is humiliating to think that, if we had done so and so and refrained from doing this or that, perhaps a certain patient might have been saved. Sometimes the consciousness of failure remains vivid with us for long periods. Sometimes it never leaves us. No, it can not be said that physicians bury their mistakes. Usually they pay for them dearly and in many ways.

COOPERATIVE MEDICINE

There is a story in the Gospels about a woman who "had suffered many things of many physicians and had spent all that she had and was nothing bettered, but, rather grew worse." This story sometimes is made use of to the discredit of physicians, but, to this day it finds its counterpart in many instances in which patients change from one physician to another, without remaining in any one's care for a sufficiently long time to receive any benefit, for the simple rea-

son that not one of the physicians consulted is given an opportunity to study the case, and to establish in sufficient detail a definite and satisfactory diagnosis, much less to formulate and administer a suitable course of treatment.

While many patients seem to take pride in reciting their experience in the course of their years of peregrination from one physician's office to the other, they do not seem to realize that their habit of constantly changing medical advisors can not but result to their own disadvantage. Ordinarily, physicians are tempted rather to congratulate themselves when such people have left them for other medical attendants, knowing full well that no satisfaction can be obtained, no matter how willing they may be to enter into their clients' cases carefully and to give them the best advice possible.

However, as physicians are or should be not only healers but also teachers, it is meet to consider sympathetically and carefully a suggestion laid down by Doctor Van Becelaere in *The Detroit Medical Journal* for May. The Doctor introduces his remarks by referring to several patients that had had previous attention at the hands of other physicians and in the case of some of whom the information relating to such previous attention was absent, while in that of others it was supplied, and thus, necessarily, resulted in distinct advantage to the patients themselves, by facilitating the Doctor's investigations.

Doctor Van Becelaere asserts that records of case-histories, of technical examinations, such as uranalyses, blood examinations, Wassermann tests, X-ray examinations, and such, should be available, on request, to any physician to whom the patient in question has applied for treatment. This, the Doctor urges, certainly is true for patients that have paid fees for examinations and reports; and he believes that even hospital-records should not be privileged and that the argument of "private possession" does not hold. He fails to discover any valid reason why, in a given case, a patient affected, for instance, with ununited fracture should be compelled, every time he changes physicians, to have a new radiograph made to order for his latest attendant.

Doctor Van Becelaere refers to the Battle Creek plan (he might have mentioned also the complete routine examinations made in the institution of the Brothers Mayo), according to which prospective patients are passed along and sifted over by several examiners, each an acknowledged specialist in his chosen line, and in which manner a complete inventory of the patients' physical liabilities and assets is made possible, in other words, a complete and careful diagnosis is made, on the basis of which the best possible course of treatment can be outlined.

The Doctor advocates a plan according to which patients seeking professional treatment should, first of all, call upon a diagnosing specialist, or, a specialist in diagnosis, one that makes it his business to ascertain the nature of the disease and who even may, perhaps, outline a plan of treatment, for which latter, however, the patient is referred to that man or a group of men most competent to secure the desired results.

Of course, this is nothing more or less than what we have become accustomed to talk about as "group-medicine." At least in the cities, and even in many towns of smaller size, the benefit to be secured from multiple examinations, so to speak, at the hands of several physicians, each one with special qualification, are made accessible to the patient, and, after complete and painstaking examination, a course of treatment is outlined that, in most cases, bids fair to be successful.

The present writer always has been rather in favor of this sort of procedure. Any man who has been in practice for five years or longer is painfully conscious of the fact that it is extremely difficult, if not impossible, in many instances, to extend, unaided, the examination of a certain patient and the investigation of his or her case as widely as might be desirable and as he would like to do, for the benefit of the sick person.

It may be doubted whether there exists any physician who arrogates to himself such all-embracing knowledge that he feels perfectly competent to diagnose clearly and definitely any case that may be presented to him. In most instances, an examination by various men, followed by a consultation as to existing conditions and as to the best means for their relief, undoubtedly would offer the best results. Such a thing might be feasible in cities and towns were it not

for the seemingly unavoidable jealousies, small bickerings, and taking advantages that exist among physicians as much as among other people. Yet, if only it were possible, it would be a mighty fine thing for the patient.

Incidentally, Doctor Van Becelaere suggests that such cooperation among physicians might be for their own great benefit. Besides his clinical record, every new patient presenting himself should be obliged to show a "release" from his previous medical attendant, indicating, among other facts, that the person's bill is paid, or, if not, why not. The Doctor relates that he, himself, has collected directly from such patients bills due to previous attendants and remitted to the proper address such sums as still were due for past services.

Here is a plan that might be made to work well under certain circumstances. If all physicians, say, in a certain town, could bring themselves to forget their little personal jealousies and selfseekings, if they could make up their minds absolutely and without reservation to cooperate with all their colleagues, to play fair sturdily, and to unite with them for the purpose of giving the best-possible services to all the patients of the town, the results, we conceive, would be splendid. Suppose we talk this over. Maybe it is a pipe-dream. Yet, we refuse to admit that physicians, as a class—the finest bunch of men and women living and belonging to the most-altruistic calling in the world—can not find a *modus operandi et vivendi* by which they can materially benefit their clients and, incidentally, themselves.

Fortune is ever elusive and can only be retained by force. Deal with her tenderly and she will forsake you for a stronger man.—"The Magic Story."

A HOSPITAL-NUMBER

One of these days, we should like to get out a hospital-number, and we want to know what the readers of CLINICAL MEDICINE think about it; also, whether they will contribute to it.

We want articles on all sorts and conditions of hospitals; big hospitals and small ones; public, semipublic, and private; on the construction, the mangement, the cost, and everything appertaining to the subject.

Whether we ever get out this number, depends upon you. If any of you doctors wish to see such a number, sit down and tell us about it; also give us your contributions. When we have enough material, the special number will be published.

THE TUBERCULOSIS-PROBLEM

Decidedly, our minds run in cycles. Time was, before the bacteriological era, when pulmonary consumption was attributed to virtually everything that could cause illness in man. There scarcely was a malady that was not believed to lead to consumption sooner or later—except, perhaps, those affections associated with the "rheumatic" or "gouty" disposition. There was not a single cause of illness, in the old-time view, that was not believed to lead, in many cases, to a "decline."

With the discoveries in bacteriology, especially with the investigations of Villemin as to the infectious nature of tuberculous products, and with Koch's discovery of the bacillus of tuberculosis, a complete change of front took place. It was asserted in all seriousness that, whenever a human organism is infected with the tubercle-bacillus, that is to say, whenever it harbors the tubercle-bacillus, it necessarily becomes tuberculous. This, by the way, was disproved very soon and the necessity of other predisposing factors soon was acknowledged more especially by clinicians in opposition to bacteriologists.

However, in the campaign against tuberculosis that took its inception in the nineties of the last century and has been vigorously waged ever since all over the world, the contagious and communicable nature of tuberculous disease was emphasized to such an extent that the public became frightened, like children of the bogey-man, and that a great fear was engendered in the minds of people, so much so that serious wrong was done, not alone to the victims of active tuberculous disease, but fully as much to those that had recovered from it. They were outcasts and viewed with suspicion as much as were the lepers of ancient time.

It was a revelation when, in 1907, the experiments of von Pirquet with the allergy-tests—first, with the skin-test for tuberculosis—showed conclusively (what had been understood, in a way, through the results of necropsy-investigations during several years preceding) that possibly eighty

percent and sometimes even more of the population carried in their system latent, or dormant, tuberculous foci and, therefore, tubercle-bacilli.

With this discovery, the pathogenesis of tuberculosis entered a new phase and it came to be realized that the tubercle-bacillus alone is not capable to lead to actual clinical tuberculous disease, but, that the cooperation of other pathogenic germs, particularly of pus-bacteria, is necessary; and thus, in a way, we came back to the old view that whatever can render man ill—or, in other words, can lower his resistance—is capable of causing him to acquire tuberculous disease by affording, through the lessened resistance, a favorable culture-soil for the pathogenic germs, tubercle-bacilli associated with others, that he might harbor on the mucous membranes, more especially of his respiratory passages.

Owing to the widespread distribution of all these bacteria, the conclusion was unavoidable that it is virtually impossible to escape infection, and it came to be realized, as Doctor Palmer put it epigrammatically in a paper read before the American Medical Association last June (*Jour. A. M. A.*, Sept. 27, p. 985) that success will come through our learning how to live with the tubercle-bacillus rather than in striving to avoid initial infection.

We rarely have read an article on the pathogenesis and the prevention of tuberculosis that puts the problem as clearly and lucidly as does this one. Doctor Palmer shows, what, to be sure, has been proved years ago, that the relationship between infection and disease is very remote. That is to say, the mere fact of an infection does not mean that disease is inevitable. It is entirely a question of predisposing influences that cause an infection to eventuate in disease.

Moreover, while, during the twenty years since the inception of the tuberculosis-campaign, the tuberculosis mortality has decreased, from 238 per hundred thousand population, to 166 per hundred thousand, (a decrease of 30 to 25 percent), and, while, during the past fifteen years, the decrease in five-year periods has been 22.2 percent, it must not be forgotten that, during the twenty years preceding the anti-tuberculosis-campaign, the mortality from tuberculosis decreased, from 339 per hundred thousand population, to 245 per hundred thousand, or a decrease of about 27.5 percent. Indeed, during something more than one hundred years, that is, since 1812, when the tuberculosis death rate was close to 450 per hundred thousand, the decrease in tuberculosis-mortality has been steady and continuous.

It is evident, therefore, that the diminished tuberculosis-mortality is not a consequence, entirely, of the lessons taken from the recognition of tuberculosis as a communicable disease, but, rather, that improved sanitation and hygiene and better conditions of living in general have contributed their full share.

The tuberculosis-problem, therefore, is not solely a bacteriological one, but, it is one that concerns the sanitarian, the hygienist and dietetist, the social worker, fully as much as it does the physician, and, indeed, all these agencies have to cooperate in order to bring about an even greater and more decided diminution of the frequency and mortality of tuberculous disease.

Whether one is by disposition and practice an optimist or pessimist is a determining factor in his success in business or profession. Everyone is familiar with the good cheer and general hopefulness radiating from one who habitually looks on the bright side of daily life, in contrast with the depression and gloom from one who continually magnifies the dark side.—Northwest Medicine.

FAIR DEALINGS

An editorial in a recent number of *The American Trade Association Journal* contains the following passage:

"A successful salesman does not have to knock his competitors. If his competitors have anything on him, he must be able, at all times, to combat it with high-grade salesmanship, be able to present his line to his customers so convincingly that the doctor forgets about the cheap price or cheap deal the other fellow has to offer. . . . . There is only one way to do business, and that's on the level. Once you get the confidence of the doctor, the battle of salesmanship is half over."

Let's apply this the other way 'round—to the relations between physician and patient. It, surely, is true that a successful physician does not have to knock his competitor in any way whatever; neither outright by deliberately blackening the competitor's name, ability, standing, and so forth; nor indirectly by damning him with faint praise or by shrugging of shoulders and admitting magnanimously that, some

day, he will be a pretty good doctor; nor by innuendo or cussed and ill-natured comment.

There is nothing quite so damnably rotten mean as the way in which some physicians talk about their competitors and—more's the pity—the way some old established practitioners are guilty on every count on which they might be indicted in this particular respect.

In small towns and in country places, especially, physicians seem to take it as a personal insult if another man, say, a recent graduate, settles down and opens an office for the practice of his profession. There is, at once, the fear of losing patronage; the apprehension that some of his patients and clients may desire to "change doctors." This may be dictated by an uncomfortable consciousness of sins of omission or commission, a memory of some little carelessness or of some error, a reminiscence here and there of dissatisfaction expressed by various patients; and it is dictated, also, by the well-known craze of certain members of every community to patronize the latest comer among the local physicians.

Let us remember how fiercely we, ourselves, resented the attitude of the older physicians if this was unfavorable; how grateful we were for the kindly support of those older men that were not jealous of every case that might come our way, who actually aided us with counsel and advice, and who, perhaps, put a case in our way here and there, possibly a night-visit or an obstetric case, who called upon us for assistance in surgical work and otherwise did us innumerable little kindnesses.

In the doctor's everyday life and practice, invidious remarks concerning his competitors always are in wretched taste and are quite certain to reflect to his disadvantage, like the well-known chickens coming home to roost. Some years ago, when the present writer first began to review books, his superior in the editorial office counseled him somewhat in this way: "If you can not say anything nice about a book, say nothing, unless it contains manifestly wrong and misleading statements. If that is the case, castigate them fearlessly, but, do not sneer or speak unkindly."

That is good advice to be followed by physicians in their relations among each other, and this includes any remarks they may make to friends or patients, about their competitors. If you can not speak appreciatively and kindly about your competitors, for heaven's sake, keep still! Any sneering or unkind remarks, surely, will come home and react to your own disadvantage. Any physician who has to resort to backbiting in order to keep his patients is to be pitied, because his patients must be of a character anything but desirable.

Man should not be blinded to whatsoever merit exists in the opportunity which he hath in hand, remembering that a thousand promises for the future should weigh as naught against the possession of a single piece of silver.—"The Magic Story."

DRUG-ADDICTION MADE REPORTABLE: SPECIAL HOSPITAL FOR DRUG-ADDICTION

In *The Weekly Bulletin* of the Department of Health of the city of New York, for August 9, it is reported that, at a meeting of the board of health of that city, held July 22, 1919, the following resolution was adopted:

"Resolved, that Section 1 of the sanitary code be and the same is hereby amended by adding thereto a new subdivision, to be known as Subdivision 47, to read as follows:

"Pestilential Disease: Shall be deemed to include the conditions and symptoms resulting from the habitual use of habit-forming drugs, and known as drug-addiction."

Since the adoption of stringent laws and regulations relative to the use of narcotic drugs, the difficulties of the drug-addicts have become very great.

This is true, particularly, in those states in which the legislatures have passed regulations that are even more stringent than those of the federal government. *The Weekly Bulletin* referred to in the foregoing points out that, for New York (and the same is true for other large cities), the greatest need in connection with the drug-addiction question is, the opportunity for special institutional care for those victims that require it. But, for this, facilities are totally inadequate throughout the entire country.

We learn with much interest that, as the result of negotiations with the Secretary of the Navy, conducted by the Mayor and the Commissioner of Health, permission has been obtained for use of buildings, no longer needed by the Navy, at the Pelham

Bay Training Station, and, within a brief period, accommodations for 1,000 patients will be arranged therein. The plan of treatment provides for those that can be rapidly cured of the habit through reduction of dosage, and, as the location and surroundings at Pelham Bay are such that it will be possible to guard against smuggling of drugs to patients, striking results are anticipated.

Ask of no man permission to perform.—"The Magic Story."

HOW OTHERS SEE US

Of course, the war happily is over and our intense activities in France are now in process of being wound up. So, the quotation from a little French medical periodical, that we wish to reproduce in the following, might be worded in the past tense. However, if we consider that it was published in November last, we shall appreciate the things that the author, Dr. Henri Bouquet, says about us. In *Le Monde Médical* for that month, the following remarks appear:

"The principal feature of the assistance that the United States has contributed to the great war for liberty is, no doubt, its amplitude. All the figures that have been given us concerning the numbers of soldiers sent to Europe, their supplies and their material, savor of the gigantic. The Army Medical Service of our allies could not but follow suit. As a matter of fact, it is fully up to the mark, as I can certify from my personal knowledge, having recently had occasion to visit one of the four big "base hospitals" now built in regions which the Censor forbids me to name. Each of these four centers is made up of 20 hospitals (all comprised on the same grounds, which measures some 14 or 15 kilometers in circumference), each structure intended for the reception of 2,000 men, 30 surgeons, 100 female and 200 male nurses. If we sum this up, we will find that this entire enterprise represents four towns of 46,000 inhabitants that have sprung up on our territory. This, too, independently of the innumerable buildings that have been requisitioned, by the American army, to serve as ambulances and hospitals here, there, and everywhere.

"In sooth, one's imagination turns giddy in trying to form a concrete idea of this effort on the part of the United States, whether we view it from the point of view of dollars, of men or of material. When one has the good fortune to get within sight of the reality in any one sector of this immense program, one can not but be struck by the extreme order with which everything is executed and, passing from the infinitely great to the infinitely little, one is seized with astonishment at the scrupulous attention to detail that has presided over this rather fantastic plan. Everything has been foreseen in its uttermost detail and one hospital that I might name is provided with everything that can possibly be of use to the wounded or sick soldier from the time of his admission to the date of his discharge. Foreseen, that goes without saying; but, the interesting feature is, that, in order to steer clear of any obstacle and at the same time to obviate the necessity for asking anything from us European nations, who have already done so much for ourselves, everything has been brought from overseas.

"Not to wander from the medical domain, let us look at this wagon for the transport of the wounded, as well as this cylinder of oxygen, this incubator or those microphotographic slides, this kitchen-oven or that packet of foot-powder, and you may be sure that you will find the label of some firm in New York or Chicago or the mark of a Detroit factory. In the central warehouse of each aggregation, there are stored 100,000 rations, and the supply is being maintained at this level, not to speak of a few hundred in each of the hospitals.

"I have nothing more to say to my confrères with respect to the installation that I have been permitted to visit. A hospital is the same everywhere. The rules of surgical intervention are identical for the Americans as for ourselves. There, no doubt, are differences of technic to be found; however, to do that, would take me too far afield in such a brief chronicle of the condition. I merely wish to note, in passing, how, in each department the United States takes a wide, complete, comprehensive view, yielding a total effort the effects of which were splendidly manifested as soon as the soldiers of America, "the home of the free," took their places at the sides of our incomparable armies which, for now four years, have by themselves defended the supreme interests of the world."

Leading Articles

Influenza, Pneumonia and Hydrotherapy

Low Mortality By Use of Rational Hydrotherapy and Practical Methods of Administration

By EDWARD THOMAS SECOR, M. D., La Grange, Illinois

THERE have been published so many articles on influenza-pneumonia, including the careful study of the disease, its pathology, symptomatology, and so forth, that it would seem supererogatory to attempt to add to this information; yet, as the high mortality rate presumably indicates, there is something lacking in the prevailing therapy.

At present, the medical fraternity is quite prone to await phenomenal results from untried vaccines, serums, and the like, and to neglect the thorough use of the tried and efficient although more laborious methods.

It seems to be the consensus that, in a certain percentage of influenza-cases, pneumonia will supervene and that a certain number of these will prove fatal, regardless of drug-therapy and good management.

Statistics of cases in which drug-therapy alone has been relied upon seem to bear out this idea; however, I find that, when rational hydrotherapy is added to not too much drug-therapy, the results have been extremely gratifying.

It is only the demonstrated powerful effects of hydrotherapy, which are recognized as the most effective of all measures known for combating diseases, in addition to my desire to bring this measure into more general use for the control of this so often rapidly fatal condition, that cause me to ask a hearing. My personal results are based upon more than 500 cases in general private practice during the past autumn and winter. These were so divided, as to class and living-conditions, as to tally with those occurring in any average general practice, namely:

60 percent mixed suburban and rural population of all ages living under middle- and better-class conditions.

20 percent Italians living under medium conditions.

10 percent Swedish students of an average age of about eighteen years.

10 percent Negroes living under medium conditions.

Success of Hydrotherapy

Out of this group of patients, in only 2 percent there occurred any extensive degree of pneumonia. In these cases, the condition had attained a good headway before treatment was instituted, but, even so, only one terminated in death. This patient came under observation with a well-advanced and rapidly developing lung-condition and the patient was extremely cyanotic and comatose before hydrotherapy could be brought to bear, and, although we were gaining air-capacity and the patient's general condition showed improvement, there was, besides the influenza-pneumonia, also a status epilepticus; and death ensued under an overwhelming seizure.

I find that hydrotherapy has been employed elsewhere during this epidemic, and with similarly gratifying results. At the Battle Creek Sanitarium and other similar institutions where hydrotherapy is the chief standby and where the nurses are skilled in its proper application, the low percentage of well-developed pneumonias and the

low mortality compare favorably with my results.

In my opinion, the time of intervention, when the maximum benefit may be derived from the minimum treatment, is in the prepneumonic stage, with its mucopurulent bronchitis, which has but to advance to the peribronchial lung-tissue, and, by rapid direct extension, eventuate in bronchopneumonia, with its associated congestion and edema. If the patient comes under treatment during this stage or even a little later, but, before too large a portion of the lung has become involved, the results are, as a rule, so excellent that one is apt to consider that he was unduly alarmed by the earlier findings.

It is only by comparing several hundred cases, treated in this manner, with a similar number treated by other methods that one can fully realize the actual benefits derived therefrom. When the early râles disappear and the temperature drops, you can not say that you have cured an attack of pneumonia; still, it is safe to say that you have met it on the way and, by controlling the situation, have prevented its development.

It is unwise to delay treatment in this condition, for, after a massive pneumonia is well developed, the patient will be in need of many times as much treatment, to get results, as would one with a beginning condition; and skilled nursing is altogether too scarce to be squandered.

My method has been, to note, in my daily rounds, those cases showing suspicious or advancing râles, and one of my nurses that followed me would treat these patients; ordinarily, they could be dropped in two or three days after one or two treatments daily, varying with severity or degree of involvement.

Those patients that were in a more advanced state were removed to the hospital where treatments could be given, even three or four times daily when urgency demanded.

General Management

The patient is kept in bed in a well-ventilated room, and permitted just as little physical exertion as is absolutely necessary, until he has had no rise of temperature for two or three days.

The intestinal evacuation is established, and maintained throughout the illness, by means of calomel, citrate of magnesium and similar agents, enemas, and so on.

The diet is confined to milk and fruit-juices.

Upon the appearance of extensive lung-involvement, the patient is raised to a semisitting position and kept thus until this condition is overcome. Analgesics of the salicylate variety are used when aching is severe, but, only just enough to afford partial relief, and then only when there is very little pulmonary involvement. No opiates are permitted, under any condition, if they can possibly be avoided; and this is possible by having recourse to hydrotherapy, even in severe pleurisy.

From actual observation, I have noted the failure of hydrotherapy in cases that would be considered good risks, and this simply because the patients were receiving opiates liberally. I am afraid to use expectorants in these cases and prefer that the nonproductive cough be controlled by combining hydrotherapy with warm medicated vapor-inhalations. For this purpose I use compound tincture of benzoin or tincture of tolu in the way to be described further on.

The cardiovascular system is assisted when necessary and the general condition is treated symptomatically.

I have used iodized calcium freely almost as a routine measure where there has been considerable bronchial involvement. This seems to modify the cough and to aid absorption in a very satisfactory manner.

In my opinion the high mortality in this epidemic was, to an unusual extent, a consequence of too much and poorly advised drug-therapy, most especially the too free use of opiates, coaltar derivatives and expectorants.

We hear much for and against the use of bacterins in this condition. I have used mixed influenza and pneumonia bacterin for immunization but cannot measure its value. I have also used these same preparations as a therapeutic measure in some of those cases coming under my care with a temperature around 106, a single dose usually resulting in a rapid drop in temperature and, I truly believe, a more speedy recovery.

In using large doses of bacterin in these critical cases I have always sought for a capillary control by an intravenous injection of digitalin prior to the use of bacterin

for fear that the rapid capillary dilatation might prove serious.

Many have held the cardiovascular activity as being chiefly at fault in this condition.

In the effort to overcome this cardiovascular failure, digitalis and allied agents have been freely used but with apparently disappointing inefficiency.

The apparent lack of therapeutic value of the preparations used was perhaps due not so much to the inertness of the drug as to the unusual extent to which it was expected to act.

This element of disappointment may be entirely overcome by giving only reasonable attention to the cardiovascular system in general and concentrating greatest efforts upon that portion where the pathologic process is most apparent.

There is far less uncertainty in the results obtainable by the physiologic therapeutic route and especially in those conditions where local applications are indicated to meet local pathology.

Hydrotherapy

Hydrotherapy is in my opinion the sheet anchor not only in preventing the development of pneumonia but also in determining that these pneumonias will not prove fatal. By a skillful application, pulmonary venous congestion which is about to take place may be overcome by producing an active hyperemia. The more rapid and free circulation thus established through the diseased area produces a local increase in leukocytes and absorption of exudate.

There is an underlying principle in hydrotherapy which governs the external area to be treated for a definite internal effect, certain skin areas being reflexly associated with certain internal viscera. The circulatory effect produced in these skin areas is analogous to the effect at the same time produced in the associated viscera.

The chief associated skin areas for lung treatment extend over the entire chest surface, thus, we make our application to this entire region.

The mode and manner of application is an all important factor in the accomplishment of a definite physiological action. The same temperature applied for the same length of time to the same individual may produce a very different result when applied in a skillful, dexterous manner, from what it would if applied in a makeshift, bunglesome fashion.

The procedure of choice when treating either an early or advanced condition is, alternate applications of heat and cold. To obtain this effect to best advantage, I use fomentations and ice, or, where ice is not procurable, in its place real cold water can be substituted and applied a little longer, although this is less efficacious.

The nurse should be provided with eight fomentation cloths which may be made by cutting a double blanket into eight equal parts once lengthwise and four times across The blanket material should be three-quarters wool and fairly heavy. She should also have two large bath towels, a large bucket of water and a smooth piece of ice as large as can be well grasped in the hand.

Technic.—With the gown removed, the patient is lying on the back with chest exposed. One folded towel is placed under the patient's shoulders to absorb any excess of moisture. Now, one of the fomentation cloths is spread out upon the table near the stove where the bucket of water is kept boiling, a second fomentation cloth is folded once and the ends are graspd one in each hand. The central portion is immersed in the boiling water to such a depth that when removed the wet portion will extend within a few inches of the ends, the dry portions at the ends permitting wringing without burning the hands. This method of wringing fomentation cloths produces a dryer cloth and in shorter time than when using the time honored stupe wringer. After thoroughly wringing until there is no dripping, this cloth is spread in two thicknesses across the center of the dry cloth on the table and the sides of the dry cloth are folded over to envelop the wet one; the wet and dry combination is then quickly turned over, folded once endwise and tightly rolled together, a second is prepared in the same manner and the two are unrolled and applied simultaneously to the back and front of the entire chest. The patient lies back upon the posterior application and the anterior fomentation is covered with a dry bath towel. In a few seconds, the patient will complain of the fomentation burning, due to an accumulation of steam between the skin and the first cloth. This may be relieved by quickly passing the hand between the cloth and the skin thus allowing the steam to escape. This

may have to be repeated several times to give the desired relief. Another set of two fomentations is prepared in the same manner and taken to the bed side. Three or four minutes have elapsed since the first applications were made and they are no longer real hot. The patient, if able, assumes a sitting posture and, removing the posterior application, this area is quickly gone over with ice the moisture dried off and a second fomentation is applied. The patient resuming the former position, the anterior application is removed, the part gone over with ice and the second fomentation is applied. A third and often a fourth is made in like manner, finishing with ice. After drying the skin, the chest is protected by a well fitting flannel jacket which should be worn between treatments. Whether a third application is sufficient or a fourth is necessary in a given case, may be determined by the degree of skin reaction or redness displayed at the site of treatment. This reaction is necessary if one is to expect a corresponding internal reaction, therefore, if three changes are not sufficient, a fourth should be made.

As to Reaction

There is a great difference in the degree and rapidity of reaction in different subjects and also a marked difference depending upon the skill and dexterity with which the applications are made.

A patient who reacts well usually may be considered a short case requiring little treatment and vice-versa.

The pain of acute pleurisy as well as the pathologic process may be greatly controlled by the fomentation omitting the ice in that region during the more acute stage, but, after this stage is passed, the alternate hot and cold will aid greatly in the absorption of the exudate.

The various known hydrotherapeutic procedures for controlling high temperature are indicated in influenza as elsewhere.

It might be mentioned that, not infrequently, immediately following the half-hour treatment with alternate hot and cold, the temperature drops a degree and almost without fail the patient feels better.

If the first opportunity for hydrotherapy comes after the pulmonary venous congestion is well advanced or is making unusually rapid progress, the local treatment may be greatly assisted if preceded by a hot hip and leg pack, one of the most efficient derivative measures used in hydrotherapy.

The pack should include feet, legs, thighs and pelvis reaching slightly above the crests of the ilia.

Technic—Spread a double blanket on the bed, adjust a cold compress to the patient's head. A hot foot bath is also a good preliminary measure if convenient.

Fold a single blanket or, still better, a double blanket, endwise. This folded blanket is grasped by two assistants and wrung out of boiling water until quite dry then quickly unfolded and spread over the blanket on the bed.

The patient, without delay, the gown having been removed, is assisted to lie on the hot blanket in such a position as to make it possible to quickly envelope the above mentioned parts.

The blankets are snugly wrapped about the parts so that the wet one comes in contact with all skin surfaces and the dry one covers in to retain the heat.

Six one-quart fruit jars containing hot water are distributed to the parts under treatment one thickness of dry blanket coming between the jars and the wet blanket. In half an hour the patient should be removed from the pack one leg at a time and the parts as removed gone over with a cold-mitten friction to retain the blood in the limbs; thus maintaining derivation secured by the hot pack.

These measures, while comparatively simple, require a little effort; however, this is far exceeded by the end results.

Contraindications—There are, in my opinion, no contraindications as patients with a weakness which must be guarded against, whether cardiac, renal, or what not, are those most in need of the efficient life saving qualities of hydrotherapy and their treatment should receive a little extra attention, if possible, and be pushed a little harder than in the average case so as to save the weakened organism.

The necessary improvised apparatus for giving the medicated-vapor inhalations mentioned above consists of a teakettle, a heavy-weighted cup which is placed inside the teakettle, a long paper funnel the small end of which is of proper dimensions to fit over the spout. The teakettle with about an inch of water is brought to the boiling point on the stove and then kept steaming at the bed side, in the absence of

a better arrangement, by an improvised stove made by supporting a hot flat-iron bottom side up between two bricks. After the teakettle is in position and the paper funnel attached, a teaspoonful of compound tincture of benzoin or tincture of tolu is placed in the dry cup and the medicated vapor may be inhaled at the large end of the funnel. This may be continued for half an hour or longer and repeated several times a day if necessary. It is seldom that a patient objects to these inhalations and they seem to soothe the irritated respiratory tract. I have been fortunate during this epidemic in having at my disposal a corps of competent nurses skilled in hydrotherapy. It is possible, however, for any apt assistant possessing the attributes of dexterity and dependability to become proficient in this portion of hydrotherapy, with a little instructions and practice; but, it is unsafe to ask the average nurse to give such treatment without first seeing to it that she has suitable appliances and correct working knowledge which, unfortunately, is seldom possessed by even the best-trained hospital nurse.

Even a nurse who has had training in hydrotherapy often must be instructed to put a little snap into her treatments. Hot must be hot and cold must be cold and changes must be quickly made and at the right time to get results.

The average nurse trained in hydrotherapy is accustomed to treat chronic conditions of the kind frequently met with at institutions where hydrotherapy receives greatest attention; but, while these conditions call for the same snap and accuracy in order to obtain more than a psychic effect, she often gets into a rut and becomes slovenly in her treatments. Such treatment doubtless will hasten the end in a case of influenza-pneumonia.

The Chlorine-Compound Chlorazene

Its Use as an Internal Remedy in General Practice

By J. W. McCREADY, M. D., New York City

IN THE fall of 1914, Dr. Henry D. Dakin, of New York, began his experiments, at the Rockefeller Laboratory, with the chlorine-compounds; and we all know of the wonderful results he obtained and the many lives that were saved during the recent European war by the production and use of these compounds.

In this country, the chlorine-compound chlorazene has been in general use, during the past three years, as in an antiseptic in the dressing and irrigation of wounds and in various diseases of the eye, nose, throat, urethra, and bladder.

But, it is my opinion that chlorazene has even a greater value, as an internal remedy, as a disinfectant and antiseptic of the alimentary tract.

Thirty years ago, at Randall's Island Hospital, we used chlorine-water in the throats of diphtheritic and scarlet-fever patients, to dissolve membranes and necrotic tissues; but, of late years, chlorine has fallen into disuse. In fact, it was almost forgotten, until recently revived by the experiments of Dakin, Dunham, and others. During the past eight months, I have used chlorazene, in more than one hundred cases, as an internal remedy in various diseases of the intestinal tract and have been more than pleased with the results.

So far as I know, very little is known regarding the action of chlorine internally. But, in December, 1918, there appeared, in the *Paris Médical*, an article on chlorazene as an intestinal disinfectant, by P. Carnot, M. D., and Th. Bondouy, M. D., of Paris. Their experiments were very interesting, showing that chlorazene is a nontoxic substance, a deodorant as well as disinfectant and possessing the power of decomposing toxins, and well borne in the digestive tract.

These experiments were largely carried on, in the laboratory, with the various digestive secretions; but, several cases were, at the same time, reported where chlorazene had been given to hospital-patients where they desired to disinfect the intertinal canal and deodorize the stools, as in gastric distress, acute enteritis, bacillary

dysentery, and affections resulting from the group of typhoid-organisms. The results, in some of these cases, were remarkable and the symptoms cleared up rapidly.

Chlorazene appears to be more stable than the other chlorine-compounds and exerts a more prolonged antiseptic action. In the stomach, the gastric juice decomposes chlorazene slowly and a quantity of chlorine is given off, which unites with water, to form hydrochloric acid, and sets free oxygen.

In order still further to prolong this action, it is best to combine chlorazene with an insoluble or feebly soluble substance. I have used bismuth subnitrate for this purpose, or charcoal, as a vehicle, and for its well-known power of absorption.

In gastrointestinal indigestion, pepsin and pancreatin can be combined with chlorazene where it is suspected that these digestive secretions are deficient. I have used this combination with good results. I do not think that the power of digestion is interfered with when chlorazene is used without these digestives, as I often use just a carrying agent, such as willow-charcoal, and have had splendid results.

Illustrations from Practice

For example, in the case of man sixty-five years old, who had been a sufferer from attacks of acute indigestion for years and had never been relieved by any of the ordinary remedies excepting a hypodermic of morphine, was promptly relieved by chlorazene, gr. 3-4, and willow-charcoal, gr. 10, in powder. This patient remarked later that he could not understand why I had never given him this medicine before; and now he takes one of the powders after dinner at night and says he never has any more bad attacks.

Case 2: Miss O. fifty-four years of age, chronic gastritis, with ulceration of the stomach. This case has been treated by me, for years, with medicine, and I had washed out her stomach many times with antiseptic solutions. The silver preparations ichthargan, argyrol, and solargentum (Squibb's) were all tried and they were of some benefit; but, nothing has done her so much good as chlorazene. It was in this case that I first used chlorazene as an internal remedy, and by accident rather than by experiment.

This lady had an atrophic nasopharyngitis, as well as a gastritis, and, one day while spraying her nose and throat with a solution of chlorazene, she accidentally swallowed some of the solution and at first was very much alarmed; but, I assured her that it would not do her any harm and that, in fact, it might be a good thing for her stomach.

I gave her some chlorazene tablets and told her to dissolve two of them in a glass of warm water and spray her nose and gargle the throat and swallow a little of the solution each time. In one week, the patient returned, looking and feeling much better, and told me that her stomach was fine; that it had not been so good in years. The local treatment was kept up, but, I gave capsules of chlorazene, gr. 1-2, with lactopepton, gr. 6 and charcoal, gr. 5; one such to be taken after each meal. And the improvement was remarkable.

Case 3: A case of acute autointoxication. Mrs. C., 35 years old, was taken sick suddenly with vomiting, headache, pain in the back and limbs, had abdominal pains, was constipated. Temperature 103.8° F., pulse 92, respiration normal, marked depression. Blood pressure under 100. I gave a cathartic and irrigated the bowels. I then gave her capsules of chlorazene, gr. 1-2, with charcoal, gr. 6, one to be taken every six hours. The next day when I called, the nurse reported that the patient had abdominal pains during the night, so, could not sleep much, but, did not vomit as often as before and had not vomited during the past six hours. Temperature was 102 degrees. Abdominal distention was well marked and there was tenderness on pressure.

The patient was given a high irrigation of alum-water, and she expelled a quantity of gas, with mucus and some undigested food. I left an order for the irrigations to be repeated twice a day and the chlorazene capsules to be continued. A large amount of indican was found.

Third day: Temperature was 101.8° F., at 4 a. m., but, was down to 99.4 degrees when I called at noon. The patient had slept six hours during the night and woke up hungry, so, the nurse gave her a cup of coffee, and, three hours later, a cup of chicken-broth. There was very little abdominal distention or soreness. Treatment continued as before.

Fourth day: Patient had slept all night. Temperature, normal; abdominal symp-

toms had cleared up, so, the treatment was discontinued, excepting that one capsule was to be taken after dinner each day.

Fifth day: The nurse called at my office with a sample of the urine and reported that the patient was feeling fine and that her services were no longer required. Examination of the urine did not show a trace of indican.

In many cases of autoinfection treated with chlorazene, I have found the distressing symptoms to clear up in two or three days.

Case 4: This will illustrate this last point. Mrs. P., aged 42, called at my office, and gave the following history: Four weeks ago, she began to have headache, muscular pain, indigestion, a tired, languid feeling, and constipation. She thought she had muscular rheumatism and went to Mt. Clemens and took the baths for three weeks. She had just returned and was feeling no better; in fact, worse, as the baths had weakened her and she still had all of the other symptoms. My diagnosis was, autointoxication, and this was confirmed by the examination of urine, which showed indican in excess. I gave her, in capsule, chlorazene, gr. 3-4; charcoal, gr. 10; one such four times a day for three days. All her symptoms cleared up.

During the influenza-epidemic of last winter and this spring, we had many complications and, in the majority of cases, the intestinal tract was affected. In pneumonia, there was, in almost every case I treated, an intestinal indigestion, and, in all of such cases, I used chlorazene with good results.

Case 5: Young man, 22 years of age. Had influenza, with pneumonia as a complication. On the fourth day of the pneumonia, he developed toxic symptoms. He had a mild form of delirium, from which he could be roused up enough to answer questions slowly, but, with great difficulty. The abdomen was distended and tympanitic. I had the nurse give a high irrigation of alum-water, and left a prescription for chlorazene, gr. 1-2, with charcoal, gr. 10 in each capsule, one of these to be given every three or four hours. Oxygen inhalations, as required.

Next morning, the patient's friend, Doctor B., called at my office and informed me that he thought my patient was going to die, that he had just been over at the hospital and had examined him. The Doctor asked whether I had any objection to his calling in a Doctor K., a friend of his, in consultation. To this, I readily assented and met the two doctors that day at the bedside of the patient. Doctor K. thought that, while the patient was very sick with pneumonia, he did not think there was any cause for alarm at that time, but, that, owing to the toxic symptoms, probably originating from the intestinal tract, recovery would be very slow, and that, in such cases, he had given serum with good results. Camphor in oil was suggested by the other doctor. I thanked them for their good advice, but, saw no reason for a change of treatment, so, continued as before. The patient made a good recovery, leaving the hospital ten days later.

Case 6: A prominent merchant, 64 years of age, was brought home to New York from the country on a Saturday evening sick with ptomain-poisoning from eating oysters. He had a subnormal temperature, heart's action very weak and irregular, vomiting, cold extremities, headache, dryness of mouth and throat, abdominal cramp-like pains. He gave a history of having been sick for three days and, during this time, he had voided 83 watery stools with blood and mucus.

The patient told me that it was absolutely necessary for me to cure him quickly, as he was obliged to be downtown at his office on Tuesday morning, even if he had to be carried down. The time was less than three days, so, I started treatment at once, giving him calomel and ipecac in small doses every twenty minutes, also, a high irrigation; and wrote for chlorazene, gr. 3-4, charcoal, gr. 10, such a capsule to be given every six hours. Much to my surprise, the patient recovered promptly and kept his engagement at his office on Tuesday morning. In this great city of ours, every person wants quick action for his money, even in medicine. The next case will illustrate this point.

Case 7: A man, 33 years of age, sick with gastrointestinal indigestion. In this case, I should like to give you the history just as it was given to me in the patient's own phraseology, as it is rather unique, with a dash of rough comedy in spots.

A Patient's Own Story

The man called at my office one morning before eight o'clock and told my office-boy

that he must see the Doctor at once. I rushed in and asked him whether he had been in another auto-accident, as he drives a Ford and takes lots of chances and has been in many a mixup. His reply was, "Stop kidding. I am in a hurry and them capsules you gave me, as big as my thumb, was no good and I had a hellufa time trying to swallow them at that, and now I want some medicine in powders, strong enough to kill or cure. I do not want this thing to become chronical—everything I eat turns to gas and I bloat all up and then explode at both ends."

On the patient's first visit, I had given him a digestive powder, 20 grains in a 00 capsules. This time, I gave him chlorazene, gr. 3-4, charcoal, gr. 10, lactopepton, gr. 10, in each powder: to take one after each meal, with water, as the medicine would be a little hot. I cautioned him, knowing that the chlorazene would give off chlorine when it came in contact with the saliva in the mouth.

A few days later, meeting him upon the street, I asked him about the gas, and he said that I had "cooked the gas all right." but, that he had to take as much water as a chaser to get the powder down as he did "with a drink of the poor whiskey they were selling nowadays." He shook hands when we parted and remarked that he "thought I was a good doctor," but, that I had "a poor way of giving medicine."

As to the use of chlorazene, at least, I think this patient was right, and will admit that I know but very little regarding the elegancy of pharmacy and even less about chemistry. During my experiments with chlorazene, I tried many mixtures, both in solution and powder; some appeared to be compatible, but, more were incompatible; until, at last, I decided upon the digestive powders, bismuth subnitrate and willow charcoal. And, just here, I wish to acknowledge, with thanks, my indebtedness to Schaaf Bros., druggists, of 2151 Eighth Avenue, New York, for assisting me with my experiments.

Many of the druggists in New York City and surrounding towns refused to fill my prescriptions, without first calling me up on the 'phone, when I wrote for chlorazene, and, for that, I could not blame them, as the drug was not then known as in internal remedy.

Last April, I wrote for information to the Abbott Laboratories. In reply, they told me that they were greatly interested in my experience with chlorazene. That they were working on a preparation of chlorazene for internal use, but, had not put it on the market, and were waiting for further clinical reports before doing so.

Spinal Anesthesia

By PROF. VICTOR PAUCHET, M. D., Paris, France

THERE are two convenient procedures for producing anesthesia, namely, rectal narcosis with a mixture of oil and ether, and spinal anesthesia. The indications for these two methods are not the same. It is not possible, under rectal anesthesia, to operate upon an abdomen when the intestines are distended, while during spinal anesthesia the abdomen is retracted and thus performance of laparotomy facilitated.

Spinal anesthesia may be employed for three different forms of anesthesia, namely: *a,* general; *b,* high (affecting abdomen and pelvis); *c,* inferior (affecting peritoneum and lower limbs).

For general anesthesia, Jonesco's method may be employed. However, I prefer the method of Le Filliatre, who injects a solution of 5 centigrams of cocaine in to the lumbosacral space, and recommends the removal of 20 to 30 mils. (Cc.) of cephalospinal fluid. This method has yielded great service during the war, because it has permitted operating after a single anesthetic injection upon patients with numerous wounds. Thus, upon the same subject, I have performed trephining and resection of the elbow, and fitted a leg-appliance. The analgesia lasts

*Translated from *Gazette des Hopitaux* for April 19, 1919.

from one hour to one and one-half hours.

For anesthesia of head and neck and for most of my operations, I much prefer local and regional anesthesia (Pauchet et Sourdat: "Anesthésie Régionale.").

For high anesthesia and low anesthesia, I use a full or half of an ampule of the anesthetic.

Indications

Spinal anesthesia is indicated in the major operations on the abdomen, pelvis, and lower limbs (as, for instance, amputation, exarticulation; resection of the knee, the thigh, the hip; high extirpation of the rectum, hysterectomy for cancer, gastrectomy for adherent ulcer, intestinal occlusion). For the last-named operation, spinal anesthesia improves the prognosis, for, it causes the intestine to contract, makes the abdominal wall more limber, and does not, during the narcosis, endanger the life of the patient by stercoraceous vomiting.

As spinal anesthesia is not quite as safe as regional or local anesthesia, I am of the opinion that it is not quite proper to employ it for simple operations for which local anesthesia suffices; such as, for instance, hemorrhoids, varicocele, perineorraphy, amputation of the foot, osteotomy of the femur, prostatectomy, craniectomy, goiter, cancer of the tongue, and so on.

Among one hundred operations, I resort about fifty times to regional or local anesthesia, about ten times to inhalation-narcosis, fifteen times to spinal, and twenty-five times to mixed anesthesia.

Requirements.—A syringe holding 3 mils; two or three needles for lumbar puncture, with mandril and short cutting-edge; a graduated glass; tincture of iodine; ampules of a cardiac tonic containing camphorated oil, and sparteine or strychnine; also, ampules containing powdered novocaine (procaine), which is to be dissolved in the cephalospinal fluid when beginning the lumbar puncture.

Precautions.—The subject's ears are to be stopped up, the eyes must be bandaged, and silence is to be maintained. These are useful precautions.

One hour before the operation, inject, hypodermically, the contents of one ampule each of a solution of hyoscine-morphine and of a cardiac tonic.

Asepsis.—The asepsis that is observed for spinal anesthesia must be as perfect as in the case of bone-suture. The operator should paint his fingers and the back of the subject with iodine. The instruments must be sterile and placed in a sterile container.

Position of the patient.—The patient may be recumbent or sitting up. In the latter case, he will sit bent forward. For high abdominal operations (stomach, liver, kidney) the head and pelvis should be elevated, so that the middle of the back is in a sloping position. In the case of a child, the body should be bent so that head and knees touch, while the back rests on the table. This position is to be maintained for three or four minutes.

The Puncture

An intervertebral space is selected in the median line, either dorsal lumbar or lumbosacral, or between two lumbar vertebras. For operations in the upper abdomen, advise dorsolumbar puncture. For operation on the peritoneum or on the lower limbs, lumbosacral puncture. The latter space is large and accessible in the median line at an equal distance from the iliac crests and the posterior inferior iliac spine.

The needle is introduced slowly at the median line. At a certain point a resistance is felt, but, which yields. The needle pierces the "drumhead" and enters into the subarachnoid space. The liquid flows out.

Quantity of Spinal Fluid to Be Removed.—In case the tension is slight, abstract 10 mils; if it is strong, it is necessary to remove from 25 to 30 mils, the fluid to be collected in a graduated glass (Le Filliatre). The first drops are caught in the ampule that holds the anesthetic powder and is mixed with it. In order to ensure perfect solution, gentle heat may be employed.

Amount of the Anesthetic to Be Injected.—For operations on the stomach and liver, the entire contents of the ampule "Corbière" are to be used. It contains 9 centigrams of novocaine (procaine). The analgesia sometimes extends as high up as the neck and endures seventy-five minutes. The surgeon will adjust the dose to the seriousness of the operation. It will be less for an operation upon the uterus than for one upon the stomach, and still less for an operation upon the thigh or the foot or the peritoneum. In the latter case, the puncture may be lumbosacral, and one-third of the contents of the ampule will suffice.

Technic of Making the Injection

The 3-mil-syringe is filled with the solution of the anesthetic powder in the cere-

brospinal liquid, and the solution is injected slowly. Then cephalospinal liquid is aspirated and reinjected two or three times, in order to produce what is called "barbottage" of the fluid in the spinal canal. Let the patient cough, in order to promote the mixing up. Making the injection must take up several minutes.

Failures.—A. The liquid does not flow out, because the needle has struck a nerve or has entered the epidural space or a lump of fat. In this case, introduce the mandril, withdraw the needle one millimeter or push it further. If, despite these maneuvers, the liquid does not flow, the operation should be done over in the upper or the lower interspinous space, but, not into the same.

For such a second puncture, another needle must be employed.

B. Blood flows.—In this case, the needle is in a vein. The mandril must be replaced and the needle pushed forward or withdrawn slightly. If blood continues to flow, another needle must be used for puncture in the interspinous space above or below.

C. The liquid flows slowly.—The cutting-edge of the needle is stuck in the dura mater. If injections are made under these conditions, the solution remains in the epidural space, and the patient is badly anesthetized. Moreover, the barbottage is impossible, and, for this reason, anesthesia is unsatisfactory. The best procedure is, to undertake another puncture in the space above or below with a new needle.

D. Anesthesia is absent or incomplete.—In this case, the injection has been made into a vein or into the epidural space; or, also, the solution of the powder in the cephalospinal fluid has not been complete.

Accidents

A. Retention of urine.—This may persist for several days.

B. Vomiting.—This is rare after the operation. If it does occur during the operation, cold-water compresses are to be placed upon the neck. (Walther).

C. Sciatic neuralgia.—This may occur if the operator has introduced his needle outside of the median line and has pierced the nerves. It never persists.

D. Headache.—This is a frequent accident. Antipyrin may be given. If the pain is severe, lumbar puncture should be done. With good technic, this accident is rare.

E. Fecal incontinence during the operation.—The patient will empty the rectum spontaneously. This is disturbing in the case of complete abdominal hysterectomy. The feces may enter the vagina. The nurse should be instructed not to give an enema on the morning of the operation, and to tampon the vagina. The patient should not be purged on the day before the operation, but, on the day before that. Liquid diet must be ordered from the time that a purgative is given until the operation is done.

F. Asphyxia because of bulbar inhibition.—The anesthesia extends so high up that the respiratory center is anesthetized. If the brain is intact, the patient must be instructed to blow or he should be made to speak constantly. After the puncture is made, an assistant should direct the patient to breathe, for the first five minutes, deeply through the nose.

I have observed three cases of bulbar inhibition, and in which it was necessary to perform artificial respiration for one minute, for ten minutes, and for fifteen minutes, respectively.

G. Cases of paraplegia or ocular paralysis are but very rare and transitory.

I do not believe that this accident can occur if the puncture is made according to the indications given in the foregoing.

H. Death.—Death follows rarely, but, it may supervene, as it does with chloroform. Spinal anesthesia is not less serious than is chloroform-anesthesia. Patients in a state of shock or greatly weakened by infection bear spinal anesthesia but poorly.

I consider spinal anesthesia to be a convenient method, one which improves the prognosis in a large number of operations, yet, which is subject to as many risks as is inhalation-narcosis. The surgeons who never have had any accidents are those who apply it with a ritualitic rigorousness and who do not subject badly shocked or excessively weakened patients to it.

Summary

Spinal anesthesia may present several immediate points of danger, but, which are very slight. On the other hand, it has no injurious action upon the lungs, nor upon the liver or kidneys. It permits, with but slight shock, the carrying out of traumatic operations, such as resection of the hip and amputation of the thigh in wounded. It renders the major abdominal operations less severe, because of its producing contraction of the intestine, softening the abdominal wall, and stopping flatus. Hysterectomy for uterine cancer or laparotomy

for acute intestinal obstructions are better carried out and, therefore, less dangerous under spinal anesthesia than under general narcosis.

This method has gained ground considerably during the last few years and will certainly continue to grow in favor in the future.

After Thirty Years—XIX

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

The Vitamines

TRUTH needs continual reiteration. It is human nature to forget. Some important fact is presented to our minds, we are impressed by it, and we resolve to bear it in mind for future use. Then other matters crowd upon the attention, the vividness of the first impression fades, and soon the truth that at first seemed so weighty and important becomes buried under a mass of mental lumber and is not acted upon.

One reason for this tendency to forget is, that so many theories professing to present the truth constantly are being offered for our acceptance. We have so many would be scientists, who are exceedingly prolific in their output of theories—theories based upon very slight evidence or no evidence at all. This is true in every department of human knowledge, however, especially so in matters relating to health; and the past decade has been unusually fruitful as regards new and sensational theories relating to health and disease, a few of which have proven to be true, a great many partly true, while the others, merely the product of unscientific speculation, were found to be utterly worthless and misleading.

The gullibility of the public, the eagerness with which people swallow the most extravagant and sensational statements relating to health, and the readiness of certain members of the profession to feed this gullibility and thereby advertise themselves, constitute one of the most disgusting spectacles of our day.

One of the most important scientific discoveries of recent years, but, which is not receiving the attention its importance demands, is that of the substances grouped under the name of vitamines, principles found in various foods, especially vegetables and fruits, and which are absolutely essential to health. If human beings or animals are, for any considerable time, fed exclusively foods low in vitamines, impaired health will result, and even death if the faulty diet is persisted in.

For a time, this subject excited considerable interest among physicians; however, there still are many in the profession that have only the vaguest ideas regarding it, while some have never heard of it. What is of more importance is, the fact that very little has been done in the way of instructing the general public or in bringing about reforms in the manner of preparing or manufacturing the foodstuffs upon which the bulk of the people live.

What Are Vitamines?

Under this loose but exceedingly comprehensive term is classed that combination of mineral salts, colloids and other organic compounds, especially those of calcium, potassium, iron and phosphorus, found abundantly in fresh vegetables, leafy grass and fruits; and in some animal substances, especially milk, egg yolk, blood and marrow.

When a diet robbed of these combinations called "vitamines" through high milling, sifting and bolting processes, or through the application of heat sufficiently intense to decompose the complex bodies, or through the action of chemical preservatives, thus rendering them inert, is persisted in, a condition of acidosis is gradually established which inhibits growth in the young, destroys resistance to disease and is ultimately followed by symptoms apparently closely related to those of scurvy, pellagra, peripheral neuritis, beri-beri.

The late war furnished a striking lesson on this subject, a lesson so spectacular that it is not likely soon to be forgotten; although, considering the clearness and convincing character of the evidence, it is

rather discouraging to find that so little has been done to profit by the lesson.

Story of the "Kronprinz Wilhelm"

On Sunday night, April 11, 1915 the German raider "Kronprinz Wilhelm" slipped quietly into our harbor of Newport News, with more than one-fifth of her crew down with a peculiar malady. With all her lights out, she had managed to slip through the line of Allied ships patrolling the ocean off the mouth of the James River. Helpless, she gave up the fight and allowed herself to be interned.

The day before the war broke out, in August, 1914, the "Kronprinz Wilhelm" had sailed from Hoboken on what appeared to be one of her usual transatlantic trips. But, the German government, knowing that war was coming, had seen to it that she had stowed away in her hold the guns, ammunition and supplies necessary to convert her into a commerce-destroyer within a few hours.

By the time that she was well at sea, her wireless informed her that the expected war had been declared, whereupon she was quickly transformed from a harmless palatial passenger-liner into a swift demon of destruction. For 255 days, the ship roamed the Atlantic, sinking numbers of merchant-ships of every kind and size, while, by virtue of her great speed, she frustrated all efforts to capture or sink her. She might have continued her career of destruction to the end of the war, had not a silent enemy from an unexpected quarter sown the seeds of death among her crew and sent her slinking away in the darkness to give up the struggle.

In all those eight and a half months, she did not enter any port, but, kept herself well supplied with coal and provisions taken from her victims before she sent them to the bottom. Most of these ships were crammed with foodstuffs of every kind for European countries. So abundant was the booty that her crew of 500 had an allowance of three pounds of fresh beef or mutton per man per day, besides an abundance of ham, bacon, butter, condensed milk, canned vegetables and fruits, boiled, mashed potatoes, white bread, sweet biscuits, lard, coffee, and sugar. She had taken from one ship such a quantity of sweet biscuits that, after she lay in the harbor of Newport News, tins of them were given as "tips" to the messenger-boys that came out to her for telegrams, mail, and other errands.

As to Vitamine-Deprivation

The crew were well fed, if being well fed means that they had all they could eat of the kind of food eaten regularly by a majority of the people of this country. They had plenty of fresh air and exercise, and, yet, when they gave up and the raider crept into the James River under cover of darkness, 110 of the crew were completely prostrated and some of them on the verge of death, while nearly all of the remaining 390 were suffering in various degrees of physical disability. In the milder cases the victims complained of weakness, anemia, shortness of breath, palpitation, pain in the nerves in various parts of the body, tenderness of the nerves under pressure, and swelling of the limbs below the knees. The more severely affected had, in addition, dilated pupils, swollen gums, cardiac dilatation, atrophy of muscles, and paralysis. Slight scratches bled uncontrollaby and refused to heal.

When the raider came to anchor at Newport News, she was visited by numbers of health-officials and other medical men and scientists. Opinions varied greatly as to the nature of the disease. Pellagra, beriberi, scurvy, pernicious anemia, polyneuritis, and rheumatism were some of the diagnoses made. The newspapers spread the report. that the disease was beri-beri, caused by eating polished rise, but, the ship's doctor stated that rice was not served oftener than 1 meal in 21. Nevertheless a majority of the scientific men decided that the malady was beri-beri and that polished rice was to blame.

It is not flattering to our profession that the problem was solved by a layman. The credit is due to Mr. Alfred W. McCann, food-expert, and, also, to the ship's surgeon, Dr. E. Perrenon, who had the wisdom to recognize the force of Mr. McCann's reasoning and to adopt his suggestions. The result left no doubt as to the correctness of Mr. McCann's views; and, when this episode is studied in conjunction with the diet of the crew during the 255 days at sea, it forms one of the most interesting chapters in the history of dietetic science.

Now let us briefly review the way the men were fed at sea, and the result of the

treatment adopted by Mr. McCann and Doctor Perrenon's repetition. We shall then be in a position to consider the scientific aspect of the matter.

Feeding the Men

Owing to the great abundance of foodstuffs taken from the ships that were sunk, the crew was not stinted in anything, both because food was plentiful and because the men would be more content if they had a luxurious table.

Breakfast consisted either of sausage, corned beef, smoked ham, bacon, fried meat or beef stew, the kind of meat being varied each day of the week; while, in addition to one of these meats, every breakfast had a plentiful supply of fried potatoes, oatmeal, mush, white bread, butter, cheese, condensed milk, sweetened coffee, and, once a week, boiled rice.

For dinner, there was either roast beef, pot-roast, fried steak or salt fish, changed daily. There also was pea-, beef- or potato-soup, boiled, mashed or fried potatoes, canned vegetables served in their own juice, white bread, butter, coffee, condensed milk and sugar.

At 4 o'clock every afternoon, the men were served with fancy biscuits or sweet cakes, coffee, condensed milk and sugar. (It reminds one of the life on a liner).

Supper consisted either of fried steak, roast beef, corned-beef hash, beef stew or cold roast beef, with an abundance of white bread, butter, cheese, coffee, condensed milk and sugar.

In fact, this crew was unconsciously acting as a poison-squad on a large scale. If the design had been to ascertain, by experiment, the real dietetic value of the kind of food mainly eaten by a vast majority of Americans, even in high-class hotels and hospitals, it could hardly have been better contrived.

The ship sailed from Hoboken on the 3rd of August, 1914. She made her first capture a month later, getting an abundant supply of fresh meat, white flour, butter, canned vegetables, coffee, sugar, and soda-crackers. Her next capture was the British steamer "La Correntina" from Argentina to London with over 5,000,000 pounds of fresh beef. So, the "Kronprinz" crammed her own immense refrigerators with hindquarters and ribs enough to last her a year, and, in addition, corned 150,000 pounds of rounds in ordinary brine of salt and saltpeter. From that time on, each victimized ship contributed only luxuries. At least two of the ships taken had cargoes of wheat. A few bushels of this grain taken on board the cruiser and properly used might have saved the situation, but, the Germans did not know that, and the wheat was sent to the bottom.

By the middle of January, 1915, Doctor Perrenon, the ship's surgeon, observed that some of the crew were showing signs of unusual pallor, some dilatation of the pupils, and marked shortness of breath, but, he did not regard the matter as serious. He grew more and more puzzled, though, as he saw the occurrence of swollen limbs, pain and tenderness in the nerves, and increasing weakness. Broken bones refused to knit. Cases of palpitation, dilated hearts, and shortness of breath were daily increasing. Some patients had muscular atrophy and paralysis.

By the 27th of March, 50 of the men could not stand on their feet, while the rest were coming down at the rate of two or three a day. It was evident that the "Kronprinz Wilhelm" soon would be helpless, like the ship of the Ancient Mariner. Something had to be done. The captain had learned by wireless that her sister ship, the "Prinz Eitel Friedrich" had, by a bold dash in the darkness, succeeded in evading the Allied scout-ships and getting safely into Newport News. There seemed nothing left for him but to attempt to do likewise, so, he waited for a dark and stormy night, which came April 10-11. Luck favored him and, on the morning of the 11th, the vanquished raider was lying at anchor in the James River—vanquished, not, by the enemy's guns, but, by the booty taken from that enemy, and by ignorance of the laws of dietetics. She was a floating hospital, almost a floating coffin, with 110 dying men on board.

The treatment given to the men, its results, and the scientific aspect of the case will be discussed in a future article.

[*To be continued.*]

2920 Warren Ave.

Hereditary Syphilis and Miopragia

By DOCTOR HUTINEL, Paris, France

Professor at the Medical Faculty of the University of Paris

[*Concluded from October issue, page 692.*]

Unto the Third and Fourth Generation

BUT, here is a fact of major importance upon which I now am obliged to insist. It is not alone in subjects directly infected by their parents that the changes in the endocrine glands appear and exert their dystrophant action. However slightly they may find expression, they are transmitted by the paths of heredity and will appear more or less modified in the descendants.

Nothing is more common than the hereditary transmission of these dystrophies. Here is an ordinary example: if a woman afflicted with thyroidal insufficiency or with Basedow's disease bears children, these frequently are myxedematous or, at least, hypothyroidic, and this hereditary transmission of an organic insufficiency is not confined to the disorders of the endocrine glands. Does it not occur again in various degrees when we come to diseases of the liver, the skin, the nerve-centers? Does it not give rise, in many subjects, to indisputable miopragias?

Syphilis Both Transmissible and Hereditary

Then, aside from the definite manifestations, through the *direct* action of the treponema, upon the organs of heredosyphilitics or, *mediately*, through the occurrence of lesions affecting the apparatus regulating nutrition, we must, among others, admit the fact of hereditary dystrophies. These are a result of the infection and, being more persistent than the latter, they sometimes are met with as late as in the third generation of the descendants of the infected progenitors. Such a degenerated descendant of a syphilitic grandfather has not, perhaps, been himself infected. He has inherited a dystrophy, but not the original infection.

Is not, then, here a most satisfactory explanation of clinical facts that are known to every physician? Is not here the bond that brings together, in a way, natural morbid conditions as unlike as dwarfism and gigantism or emaciation and obesity?

If such a dystrophic, in whom the Wassermann reaction is persistently negative despite all attempts at reactivation, is the descendant of a syphilitic grandfather, one can, from this, judge as to the action that a malady such as syphilis can exert upon the vitality of a race.

One can not fail to recognize the relationship subsisting between the vascular blood-glands and the sexual organs. Not only do certain glands, such as the thyroid and the pituitary gland, sometimes manifest their distemper at the time of puberty or of the menopause, but it not infrequently happens that the development of the ovaries or of the testicles and also the function of the sexual organs is retarded or arrested by thyroidal or hypophysial insufficiency.

Therefore, hereditary syphilis, in the last analysis, is one of the principal factors of this lamentable state of degeneracy in which the subjects are nothing but abnormal creatures, imperfect and sterile. It may directly affect injuriously the testicles or the ovaries. It especially may interfere with their development by modifying the organs regulating nutrition.

Diseases of the Bones, and Blood-Glands

Between the endocrine glands and the bone-marrow, there, likewise, obtains a relationship; and it will be of interest to inquire into the connection that may be traced between hereditary syphilis and rickets.

In hereditary syphilis, no lesions are more common than those of the bones. Parrot, who has studied these bone-disorders all his life, declared that this connection always existed. Indeed, he, in the end, came to assert that rachitis is, in every instance, a syphilitic manifestation. That, it is true, is an exaggeration. Syphilis, in itself, is capable of giving rise to rachitis at an early age, and, moreover, in a grave form. This is a fact that, it seems to me, can not be doubted.

But, is syphilis the sole or even the principal cause of rickets? I do not believe so.

The fundamental cause of this osseous dystrophy seems to be a toxi-infection of

intestinal origin, most frequently provoked by bad alimentation, notably by artificial feeding, especially badly regulated bottle-feeding. Infectious processes, acute or chronic, alimentary deficiency, and lesions of the endocrine glands likewise stand in relationship, but, mainly in the role of contributary causes.

What, then, is the part played by syphilis in the pathogenesis of rachitis? It is far from being negligible. In its changing the bones from the very first weeks of life, it renders them more vulnerable. Is it to be wondered at, then, in these circumstances, to see rachitic deformities make their appearance even in infants nourished at the breast and to encounter this dystrophy in grave forms, whether it be that the bones become very painful or that they break with great facility or, again, that they present considerable deformities?

It is the thickening of the bones of the skull that, without being truly pathognomonic, always causes one to think of hereditary syphilis. In nurslings, an early, grave or painful rachitism suggests the idea of a specific infection, especially if it is not attributable to improper alimentation. This, however, can not be positively affirmed.

But, the child grows. After three years, it will be difficult, in many instances, to accuse the feeding of being at fault; and, yet, there are subjects in whom bone-deformities, instead of diminishing in degree, persist or even grow worse, in whom the long bones break most readily, bend or become curved in odd ways, thus rendering the patients completely helpless; while the flat bones, especially those of the skull, are changed to thick symmetrical plates.

It, then, is incumbent to suspect some other cause besides that of digestive toxicosis. Frequently that cause is syphilis. But, how does this act? For one thing, it has sensitized the bones. That is certain. One, therefore, can understand how, in places, the infection with the treponema may produce manifestations that are truly specific; as, for instance, in the periosteum or in the epiphyses, such as the periostoses or, also, gummas. But, why should, in a large number of cases, the entire skeleton become involved?

It must be admitted that it is not, here, a case of infection found in some part or other, but, one of an absolute dystrophy, of a reaction on the part of the entire bone-marrow. As to the origin of this dystrophy, the action of the endocrine glands often must be suspected. However, may not it be that, generally, hereditary syphilis has simultaneously modified the bones and the glands, and, is not this that which, in the last resort, we must seek and search for? This fact is not always discovered; far from it! Still, often it is established by means of the Wassermann reaction and by the success of the treatment at the same time.

At the period of adolescence, when the sexual apparatus develops, when the child grows and develops and begins to mature, another bone-dystrophy makes its appearance. This has been termed late rachitis. It is characterized only by special deformities, such as scolioses, lordoses, kyphoses, genu valgum, et cetera, and which recall only distantly the same deformities in nurslings. It makes one think, in the majority of cases, of a modification of the endocrine glands stimulated by the incipient functioning of the sexual activity. Under these conditions, the hypophysis, the thyroid gland, even the adrenals, become more or less active. Ordinarily one need see in these deformities only the result of a slight dystrophy affecting subjects that are exhausted, overworked, deprived of pure air and muscular exercise. The syphilis scarcely is apparent. But, if the bone-deformities assume a particularly grave character and are accompanied by serious disturbances of nutrition, it is advisable not to overlook this. It certainly is not the only factor of the severe forms of late rachitis, nevertheless, it is one of the most frequent ones.

At all periods of childhood, when rickets, and more generally when bone-dystrophies show themselves in abnormal or severe form, it is well to look for syphilis.

I might say the same with regard to anemia that makes its appearance at different ages of the child, when it assumes grave forms, and, if one does not find a satisfactory explanation for its occurrence, one must always make a Wassermann test.

* * * *

I, possibly, may be acussed of laying too much stress upon syphilis, a field that already is so vast. I am willing to accept the charge. If one finds himself in the presence of a malady or a nutritional disturbance the cause of which is unknown,

if one feels disarmed and powerless, then it is a fortunate thing to discover that the infection that has caused all the trouble is that of syphilis. For, in this way, the means for successful treatment are afforded as soon as the diagnosis is made.

The Making of an Army Medical Officer

A Trip to an American Red Cross Convalescent Home

By CAPTAIN ROBERT C. MURPHY, M. R. C.,
Conv. Home No. 7 Rochefort-en-Terre, France

EARLY in February, I was ordered to take charge of a small convalescent-home, situated 35 miles north of St. Nazaire. So, I packed my locker, rolled my bedding-roll, had them loaded onto an am-

Captain Murphy.

bulance, and started for the new assignment. At that time of the year, the fields still were rather bare and the trees leafless. The ride was over good roads, on which good time could be made but for the everlasting series of curves. The country is hilly and the roads were laid out, evidently, when vehicles were few or means of drawing them limited. In ascending a hill, there are here as many curves in the road as there are turns in a corkscrew; which makes it easier for a horse, both on the upgrade and downgrade, while it is really beautiful from the artistic standpoint; although they are a terror to the driver of an automobile.

In this section, oxen are being largely used, now, yoked to two-wheeled carts. The natives almost invariably take the left-hand side of the road, the driver walking behind his cart, and, at the toot of an automobile-horn, they scurry to the heads of their team and guide them across the road to their right side. In this way, they take up the whole of the road and, if a chauffeur hasn't his car well in hand when he is confronted with one of these carts after rounding a curve in the road, there is likely to be a mixup.

At every crossroads, there was a stone cross, sometimes about three feet high and, at many of them, about six or eight feet high. At some of the main crossroads, there are wooden crosses about twenty feet high, with an image of Christ spiked to it. Between crossroads, there are many shrines built of stone, bearing images of the different saints. In front of these images, or statues, are plants or floral offerings, placed there by the devout peasants as an offering, I presume, either to appease the wrath or to gain the good will of the saint. We passed one shrine—which I afterward visited many times—which was built over a small spring, the water bubbling up in front of a statue of a female saint, and bearing the legend that anyone that had sore eyes had but to bathe them at that spring in order to have them cured.

We passed through several clusters of stone houses, called villages out of courtesy; crossed the Vilaine River on the suspension-bridge high over the masts of the

A formation of some of the patients. Captain Murphy on right in front. In background, boxwood hedge, feudal well, and château.

small sailing-vessels which come up the river from the sea. Crossing the bridge, we took the road to the right, passing through Marzan, Peule, Limerzel, to Rochefort-en-Terre. The "en Terre" (on land) is added to distinguish it from the other city of Rochefort, located on the bay of Biscay, "sur-mer", or, on the sea.

Life at Roche-en-Terre Sanatorium

We reached Roche-en-Terre after climbing a long grade, turned sharply to the left and entered the gates, over which hung the sign, "American Red Cross Convalescent Home No. 7"; we passed along the inclined driveway, through the entrance into the ruins of the walls of the château, to the château itself. Alighting, I entered what was to be my home for the next ten weeks.

The "Home" was in the château (castle). It was owned by an American artist, who had purchased it sixteen years ago, had it reconstructed, and, with his family, spent four months of the year here, while living the rest of the year in Baltimore. While the world-war was going on, this American, feeling that he would like to do his share to help, offered his home to the American Government, to be used as a home for the convalescent soldiers of the A. E. F. The government turned it over to the American Red Cross, which organization appointed the owner a Captain (to serve without pay) and sent him across to help manage it. The professional staff, to consist of one Medical Officer, two nurses, and one enlisted man of the Medical Department, U. S. Army, were detailed from Base Hospital 101, St. Nazaire. The patients were drawn from the military hospitals at Vannes, Mucon, Camp Couetquidan, and St. Nazaire.

At the time of my arrival, 80 patients were domiciled there. As the men became fit for duty, they were returned to their respective hospitals and others were sent in their place, so that we had from 65 to 80 inmates there all the time. They were all convalescents, that is, soldiers that had recovered from a sickness or disabling wounds, but, were not sick enough for the hospital, yet, not well enough to return to active duty. For these men, a few weeks or a month at a convalescent home, in addition to fresh air, pleasant surroundings, and an abundance of good food, with little work to do, worked wonders in their general health.

How Life Was Made Pleasant

Our routine for the day was, to arise at 6:30 a. m., fall in for roll-call at 7 a. m. and ten-minutes of setting-up exercise, and breakfast at 7:30; at 9 a. m. to fall in for two hours of fatigue-duty, policing up the grounds and doing any light work needed to keep the home in order; recall from fatigue at 11 a. m., lunch at noon, then off duty, to take walks through the country for the afternoon, with dinner at 6 p. m. None were allowed to leave the grounds after dinner except by permission. As the days grew longer, this time was extended to 8 p. m., so that the patients could go out and take a walk after their dinner. The evenings were occupied with playing games of cards, checkers, chess or attending entertainments. One room was arranged for

Another group of patients around the feudal well, Captain Murphy in the center. The owner, Captain Klots, is the officer to his right.

a recreation-room. A small stage was built up where we had players from the Entertainment Department at St. Nazaire, when they could send them, and, at other times, the patients were drilled by the Red Cross secretary to do their own acting. These plays by the patients, themselves, were of more genuine enjoyment to the other patients than those by the professional players were to them. The mistakes that they made and the puns that they got off at the expense of some of the other patients and the personnel of the Home were timely and always raised a laugh.

The owner of the château was a genial host and did all that he could to make things interesting for the men. He took part in the plays and the games. He gave prizes of pipes and pocket-knives to the winners. He arranged the costumes for the amateur performers, painted their faces and dressed them in their makeups. One evening he had some of the village-women come up to the Home and cook pancakes, in true Britton style, over the fire in the huge open fireplace of one of the dining-rooms.

We had two dining-rooms; one for the noncommissioned-officer patients and the other for the privates. The men sat down at real tables and were served their food as nearly like home as possible. We had a French cook, who was a wizard at turning out good dishes when she felt like it. To help her with the work, three or four of the men were detailed each day as Kitchen-Police. They peeled the potatoes and did the heavy work. The food was good and abundant. Being in the country, we had fresh vegetables and eggs even when they were scarce in the cities. For an innovation on holidays, such as Lincoln's or Washington's birthday and St. Valentine's Day, our host arranged the supper at one of the little hotels in the village. The men would fall in at the Home, march down to the hotel, and then sit down to a regular banquet. After eating, there was story-telling and singing. Then all filed out to the street, fell in, and marched back to the château. As we were the only American troops in the village, these affairs were of great interest to the natives.

Wonderful Visits to Ancient Castles

To make things still further interesting for the patients, trips were made to the different châteaus in the district. We had four automobiles and details of men were taken out in turn. One trip was to Josselin, a city some 24 miles distant. Here, on the banks of the Ouest River, was located one of the most beautiful castles of Brittany. Its present owner is a boy fourteen years of age. The boy's father was killed at Verdun at the head of a company of "Blue Devils," of which he was a captain. This is one of the four castles that were fortified in the olden days, and is the only

one of these four fortified castles that escaped destruction by conquerors, even escaping the devastating hand of Richelieu.

The castle at Josselin is a magnificent structure. It is built of stone, on a natural-rock foundation right on the bank of the river, and commands a fine view of the surrounding country. The moat that protected it on the land side is now filled in and sodded, and makes a pretty garden. We rambled around the battlements, down into the dungeon, which constitutes an integral part of each castle, and then through the persuasive use of a few francs, we had the caretaker show us through the castle itself. And, it proved a veritable museum.

Château of the Duke of Rohan in Josselin.

The table set for a buffet lunch for a dance given to officers and nurses of Base Hospital No. 101.

On the second floor, grouped around on the walls, there were suits of mail and weapons of from the 13th to the 16th centuries. Hidden behind curtains, were some of the court-robes of Louis XIV. On stands, were hung the saddles and bridles used by the ancestors of the present owner. In cases along the walls, were sabres of many kind, the spyglass that Napoleon used at the battle of Austerlitz and the bejeweled lorgnette of Marie Antoinette, cameos of wonderful workmanship, coins from nearly all the countries of the world, including a nickel and a dime from the U. S., many relics of China and curios from the Arctics that had been collected by the Duke of Rohan besides many letters of commendation that the Duke's ancestors had received from the kings of France. In another glass case, there was a piece of white silk with a rusty bloodstain on it. This is a portion of the silk dress of one of the court-ladies that was with the Duke de Barre when he was assassinated. On the walls are hanging rich tapestries and old paintings.

Downstairs, we were shown the ancient huge fireplaces, large enough to roast a whole ox. In the saloon, were many priceless paintings of kings and queens of France and several of the ancestors of the Rohan family. On an easel, was a painting of the Duke of Rohan, who was killed at Verdun. It showed him with his head bound in a bandage, on his breast were the Croix de Guerre, the insigne of the Legion of Honor, and a decoration received for bravery in the Chinese campaign.

The corner of one room. Several of the beds were supported by a gift from the Eastern Star of Missouri.

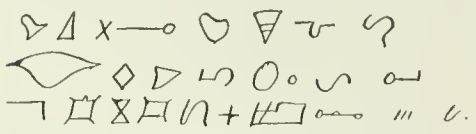
Another one of the instructive trips took us to the ruins of the castle at Suscinio, close to the gulf of Morbihan. A beautiful ruin of what once was a beautiful castle.

Still Other Castles Inspected

Still another trip took us through Questembert, on the road toward Vannes, to the city of Elven. Just outside of the city, stand the ruins of what once was an imposing, and supposedly impregnable, fortified castle. Impregnable it was till Richelieu laid his destroying hand upon it. The old

moat around it is partly filled in with the débris of the crumbled walls; however, in places, it still is intact. The old drawbridge is overgrown with grass and weeds, and, crossing it, we stepped inside the tower that still remains. The inner walls are octagonal on the first floor, hexagonal on the second floor, fivesided on the third, and foursided for the other several floors. All that is left are the walls, the royal staircase of 200 steps that lead clear to the upper battlement, also the servant's staircase, and a number of the upper rooms. On the third floor, there is the room in which the Duke of Richmond, who afterward became Henry VII of England, was kept a prisoner for two years. The bed on which he slept still stands there, and, on a marble tablet screwed to the wall, is an inscription to the effect that in this room he lived for two years.

In the olden times, operative masons, after completing their apprenticeship and becoming master-masons, were given the right to inscribe on each rock that they laid in the construction of a building, a certain distinctive mark. No one else dared to use the mark of a mason other than he to whom it was given. In those days, infringements were severely dealt with by natural law, much as we do nowadays in civil courts with a man that infringes on a trademark. When this castle at Elven was being built, I presume that it was considered an honor to help in the building; for, inscribed on the keystones of the doorways and the windows as well as on many of the rocks in the walls, there are found many different marks, showing that many masons helped in the construction. Here are a few that I copied from the stones forming the walls of the first two stories:



On two other occasions, our host took about thirty of the patients out on camping trips. Provisioned with bread, jam, ham, and eggs, they drove along the road for about ten kilometers to a quiet place in the woods. Here, fires were kindled and a right royal feast was prepared. Another time, we drove to Muzillac to the fishing-box of a baron, where we fished, rowed for a few hours, then sat down to a picnic-lunch, that had been brought along, consisting of cold meats, sardines, fried potatoes, oranges, candy, cigars, and hot coffee.

Those Interesting Market-days in Brittany

In most of the villages in this section of France (Brittany), one day a week is set aside as Market-Day. On this day, all the villagers for miles around bring to the market-place anything that they may have to sell. I have seen backed up against the walls of the houses on either side of the street as many as a hundred teams or yokes of oxen. The streets are narrow and sometimes the two opposing rows of oxen took up the whole street—and then, what a commotion we would start when trying to pass through with our automobile. All along the road to the market, we would see peasant women leading pigs with just a small rope around their necks, others carrying baskets of eggs, leading horses or trundling wheelbarrows filled with vegetables. It is a gala occasion, and men and women alike were dressed in their finest. The men with broadbrimmed velvet hats from which fluttered two streamers, tight tunics, bellowed trousers, and hobnailed shoes, the women with snowwhite demure little coiffures on their heads, velvet bodices embellished with a few frills of white lace down the front, black skirts, and wooden or hobnailed shoes. These hobnailed shoes are the bane of an autoists life while riding through France, for, it is not unusual to find half a dozen nails in one's tires.

Guérande, a walled city not far from St. Nazaire, we visited quite often. The castle here still is intact, with its moat along the front of it. The paved streets of the village are very narrow.

We made many trips to Vannes, near the Gulf of Morbihan. There was a large American Base Hospital there, which supplied us with convalescent patients. Vannes is a walled city, though very much larger than Guérande. Its old walls and gates remain intact. The ancient moat is filled in and sodded over or planted with flowers. The city is beautiful and picturesque, with plenty of shops and stores and good restaurants. The Y. M. C. A. had an officers' club here, where a very good meal could be bought for 6 francs. The service was good, there was clean linen on the tables and a homelike atmosphere was maintained.

I like Vannes better than almost any of the other cities that I visited in France.

There was about it a modern air, the stores were up to date, and the shopkeepers were business-like enough to try to sell goods and always willing to show what they had to offer. As a rule, French storekeepers do not try to sell to a customer anything but what he asks for.

These were but some of the trips on which we took or sent our patients.

The four fortified castles of feudal times, or what remains, of this region, are, as said before, located at Elven, Suscinio, Josselin and Rochefort-en-Terre. Josselin still is in good condition. Elven and Suscinio are in ruins.

Present Condition of Chateau Rochefort-en-Terre

Rochefort-en-Terre was twice destroyed, once by Richelieu and again at the time of the French Revolution. When the present owner, the American artist, acquired it sixteen years ago, he had part of it rebuilt, employing for the purpose the old building-stones and to a certain extent following the original plans of the old castle. The main staircase now is made out of hewn logs which formerly had been used in the stable. Around the open fireplaces, there are fantastic carvings of wood. The doors of the cupboards also are carved with many strange designs. Hanging on the tapestried walls, are many restored oil paintings, which were purchased at different times, in the last twenty years, by the owner, who himself is an artist, and were by him carefully cleaned and touched up, so that they look nearly as well as if newly executed. There are many originals hanging on the walls of some of the rooms, which have been painted by our host.

Nearly all of the second floor was given over for sleeping-rooms for the patients. From 6 to 10 beds were placed in the different rooms, depending upon the size; ample space being allowed between the beds. Large French windows vouchsafed a wonderful view of the valley and surrounding hills. My own room also was on this floor. The door bore a sign, "Private." The room was provided with running hot and cold water, a radiator, hot-water heat, rugs, a closet, two chairs, and a real brass bed. These things, that seem so commonplace at home, are real luxuries in this country.

A small room was set apart for an infirmary, for, while all of our patients were convalescents and presumably did not require any treatment, every now and then, some of them would show an increased temperature or have a sore throat or some indigestion or other troubles, so that we had to expect a little use for the infirmary. There were three modern bathtubs on this floor, consequently there was no excuse for one's being dirty. For the evenings, we had lamps or candles.

Indeed, the castle was a strange mixture of old and new in many different ways. It was rebuilt of old stones and parts, old glass for the windows, these barred by old gratings, there were oldfashioned fireplaces, rare old paintings on the walls, old furniture and dishes, and in some of the rooms there were thirteenth- to fifteenth-century, wormeaten wooden chests. The parts of the original walls that remained standing were covered with ivy that seemed to be four- or five-hundred years old, yet, inside, we had modern plumbing and heating, modern beds, ate off modern tables food cooked on a modern army-range.

At the back of the château, where there was a southern exposure, there are two green-houses, with plants and flowers all winter long. Early in the spring, our well-meaning but shortsighted gardener, thinking to destroy the plant-lice that were on some of the plants, burnt some sulphur in one of these green-houses, with the result that all of the parasites were destroyed and, incidentally, many of the plants that the owner had carefully nursed all winter.

From the garden in the rear, we had cauliflower and salad-greens all through the winter. Later in the spring, this garden was beautiful with blossoms on pear- and cherry-trees. A small hennery away back at the end of the property furnished us with fresh eggs when they were very scarce in the cities. A few pigs in a clean pen ate all left-overs from the table.

Near the end of the garden, on the highest point on the property, was a stone tower, in which was the tank of water that supplied pressure for our pipe-line. In the front of the building, was a patch of garden, some boxwood hedges, and a double hawthorne-tree, and, what was of a great deal of interest, an old feudal well, rich in legend. It is built of stone, six-sided, with wrought-iron over the top, in the shape of the ducal crown, and is covered with ivy. It is 13 meters down to the water, and, at

the time, there was about 13 meters of water, and, presumably, it is about the same distance to the actual bottom; for, in the olden times, after the rest of the castle had been destroyed, children used to amuse themselves by throwing stones and dirt down into it, to hear the splash. The stories have it that long ago, if the castle would be besieged, the family-jewels and valuables would be lowered into the well for safekeeping, to be taken out again when the danger was past.

Beyond the feudal well, was what had been the bakery. This little structure still is in good condition. At the end of a lane of 10-year-old trees, stands a little chapel, built, about ten years ago, of stones from the ruins of the castle. This is a "cute" little building, with a seating-capacity of about twenty people, in which Catholic services were being held every Sunday. It really is a miniature church, with statues, a bell for calling the people to prayer, a little altar, candles, and other appurtenances.

Back of the chapel, is a grove of apple-trees, their trunks covered with lichens, while, in the branches, are nestling clusters of mistletoe.

In the place of the filled-in moat of ancient times, there now is a neat garden and, in part, a village-street. On what is left of one of the battlements overlooking the village there have been fitted up a little conservatory and studio. Here the owner lived the while we occupied the castle.

There are two dungeons on the grounds, one underneath the studio and one in front of the chapel. These had, at one time, been connected by passages, but, at present, one can travel only about twenty feet in each direction, then being stopped by a cave-in. Clusters of bats clinging to the dripping walls and a roof and a pile of bleached bones in one corner of the larger dungeon make a grewsome sight in the flickering light of the candles carried on these tours of inspection. Tradition has it that these two dungeons are connected and the tunnel leads to one of the houses and the largest church in the village, so that, in times of stress, they could be used as a prison, or to conceal there a body of armed men, ready for a dash, or, as a last resort, as a means to escape.

Rich with Historical Lore

Just outside the old walls, is a flight of stone steps leading down to the village-street. History has it that several bloody encounters were fought on these stairs during the French Revolution. Crossing the village-street from the foot of the stairs and then down another flight of stone steps and along an alley-way, takes you to the village-church; outside of which are two very old tombs and a granite monument, the base of which, surmounted by a crucifix, represents the stations of the cross. The church, itself, is nearly six hundred years old. Inside, the church is almost barbaric in its splendor. The ceiling is painted to represent the heavens on a star-lit night; hanging on the walls, are several crucifixes; around the three altars are statues of saints and the Virgin, surrounded with groups of candles; in front of one of the altars, is a baptismal font; the floor is of stone flagging; the benches are straightbacked and severely plain; the stone walls are bare and, in places beneath the holy-water fonts, it is green with lichens and a very light growth of moss. I was told that there never had been a fire built in this church since it was built.

Simple Life of the Villagers

The village of Rochefort-en-Terre has about 700 population. The people were very friendly to Americans. The streets are very narrow and the houses are built very close together. All the houses are of stone, very few of them more than two stories high. One house there was built in the twelfth century. Several of them have the projecting second story that was in vogue in earlier times. The most-modern house in the village is about sixty years old. Open fireplaces are the rule. I saw no stoves except those in the hotels. Outside of the windows, are flower-boxes made of hewn stone and filled with plants that, in the summertime, make the village a riot of color. Below the window-sills, are grotesque gargoyles chiseled out of stone. Old-fashioned knockers adorn the doors, while the roofs are covered in spots with the mosses and lichens of centuries.

This village has been the Mecca of artists for many years, because of its picturesqueness, its houses, the peasants, the beautiful colorings of the sky, the hills of rocks over which the cattle graze and climb. In the principal hotel, the Lecardre, there are nearly one hundred paintings on the walls, contributed, each one, by a different artist that had spent one or more seasons

here. In this hotel, there is to be seen the most wonderful fireplace, in front of which I have eaten many a meal. To sit here for a supper, in front of the open fire of logs, while outside the rain is pouring down cold and wet, to light your pipe or cigar with a brand from the fire and look up the wide chimney at the hams and sausages hanging there to smoke, is a unique experience.

The nearest railroad-station is at Malansac, about 7 kilometers distant, and I suppose, this fact has much to do with the simplicity and honesty of the villagers. They do not travel very far from home; and, being off the beaten path of travelers, tends to keep them pretty much like their fathers.

The Home was closed up in the middle of April, when glorious spring was over the land. Trees were in leaf, flowers in bloom, farmers tilling their soil. The fields that were bare as we came up to the Home now were well covered with oats, rye, and garden-vegetables. The curves in the roads now are even more dangerous because of the fact that the trees hide the outlook. However, this is offset, to a great extent, by the fact that the spans of oxen are now at work in the fields and there is plenty of grazing in the fields for the cattle and horses that, in the early spring, grazed along the road. In the stone windmills along the roads, everyone seemed to be as busy as could be. I arrived at Base Hospital 101, in St. Nazaire, after my ten-weeks' absence and resumed my allotted work.

A Common-Sense Essay on Diet

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[*Continued from October issue, page 714*]

IN order to learn just what elements and what foods are called for in any specific case, the food-value tables should be consulted—and this should be an easy matter for every average housewife. They are published everywhere—in newspapers, in the magazines devoted to the home, in books and pamphlets, and are to be had in every public library. Failing this consultation, the next-best route to health in relation to food is by way of supplying variety. Always variety! It need not, necessarily, cost any more than the deadly monotony, either in time, labor or money. In fact, it should cost less in all these directions. A little practice of the principles, on the part of the housewife, a list of foods kept tabulated for easy reference, so that the brain need not be racked for selections every day, and a sincere desire for promoting the health and comfort of herself and family, a desire sufficiently strong to induce a little extra effort at first, these are enough to start the ball of strength and content rolling, a ball that will roll more and more smoothly as it gathers momentum with time and practice.

Meat and Morbidity

The present high price of meat, a price likely to be sustained, has brought, more than ever, to the front the question, "Is flesh really a necessary article of diet?"

It is to be regretted that the transmitted belief, that meat is essential for the attainment of mental and physical vigor, still is so widespread, even among the reflectively progressive and well-informed. A cult of thousands of generations does not die easily—nevertheless, this one should pass away. Humanity never acquired wisdom with such leaps and bounds as at the present time, nor so promptly modified its course in accordance with the demand of new things learned. In these days, prejudices have a lessened force and habits are subject to change or complete abandonment, as a result of reason and common sense.

We realize the fact that we are not, necessarily, the constrained heirs to the creeds and appetites of our ancestors. From experience or from inference, we know that there is nothing in our blood compelling us to maintain the habits of our forefathers; it is true that, to some extent, we still are under bondage. The dignity of age has its effect upon us, and meat eating enjoys this dignity ever since it has been practiced by man—supposably from necessity—from the time when he began existence as a human being. Nevertheless, this conviction is a fallacious one.

The eating of flesh is a habit that can be modified or completely abandoned, and often to advantage.

There can be no denial of the fact that we are the descendants of uncounted generations of flesh-eaters. We retain the dog-teeth of flesh-seizing, and flesh-tearing animals, and to some extent, retain their cravings and inclinations, but, what of it? We also retain, in the lower vertebræ, the vestigial tail of the ape, yet, do not accept that fact as an indication that our habits should be monkey-like. We do need the proteids, which even our immediate ancestors obtained from the flesh they consumed; still, we have become so advanced in the knowledge of facts in nature as to know that we can secure the needful proteids from simpler and less wasteful foods, some from vegetables, others of animal production. In making such departure, we but follow the dictates of an ordinary reasoning-process, and are assisted, it may be, by a certain impulse of disgust for flesh.

I have told you what the daily dietary of the average man taking moderate exercise should consist of, but, I now wish to call your attention to the mineral elements essential for a balanced and adequate nutrition, elements that have justly and aptly been described, as "the building-stones of the body"; also, that the most-advanced scientists tell us that where the caloric value of the total food is high, we require less protein, and that it is made evident that the consumption of too much meat may become directly harmful, resulting in weakness and muscular fatigue, instead of in strength, in melancholy or an irritable temper, instead of in cheerfulness and equanimity. This is because of the excess, in the system, of waste nitrogenous products, their decomposition acting as a poison that affects both nerves and muscles.

Sir Lauder Brunton, the noted London physician, thus graphically described the injurious effects of the kind of diet referred to:

"How is it that the even-tempered man has become irritable, the clear-headed man muddled, the active one lazy, the sober one perhaps a tippler, and the cheerful and buoyant depressed and melancholy? What has happened to him? Not only does the brain seem exhausted, but, the whole system seems to be languid and weak; instead of the man being able for a twenty- or thirty-mile's walk, one of a mile or two will produce fatigue, and sometimes an intense languor is felt, without any exertion at all. And, yet, all this time he may have been trying to keep up his strength. He takes butcher's meat three times a day, perhaps also strong soup, to say nothing of wine or brandy and soda, to pick him up. His tissues ought to be getting sufficient nourishment to enable them to do their work, and, yet, it is evident that they are not in a condition to do so. The man wonders at his condition, and, when he goes to his medical attendant to describe his case, he says, 'I take all sorts of strengthening things and, yet, I feel so weak.' If, instead of using those words, he were to say, '*Because* I take all sorts of strengthening things, I feel so weak,' he would express a part, at least, of the truth."

As to a Vegetarian Diet

As indicated in the foregoing quotation, many people, perhaps the majority, still believe that the eating of meat is necessary for the maintenance of strength and energy in the individual. This is a fallacy that calls for a more general exposure. Illustrations afforded by the facts of history and of the present time are not sufficiently considered. It is forgotten that some of the most powerful nations of antiquity rarely were flesh-eaters, and, by their deeds, made it obvious that meat does not afford the elements most needed for the development and replenishment of strength, either physical or mental. Consider some of the examples of today:

The remarkably fine physical development and the astonishing vigor of the natives of the Canary Islands have long been a subject of admiring comment by travelers; yet, the diet of these people is almost exclusively of *gofio,* a flour made from cereals parched or roasted before grinding. Few races surpass the Arabs in ability, power of endurance, and longevity; yet, they subsist largely upon dates and milk, the Bedouins, especially living upon nothing else for periods of months at a time.

As all know, the peasants of France are almost as famous for their hardihood as for their thrift, and there are many centenarians among them. Cobden praised their vegetable soup as the source of

French prosperity. In a work published by Bertillon, it is stated that the vine-workers of the department of the Nieure, of Burgundy, eat meat but once a year; the agricultural laborers of the Maine department eat it twice a year, the weavers of Sarthe on fête days only, while the Bretons never eat it!

The Greek boatman's food consists of a small portion of black bread and a bunch of grapes, raisins or some figs. They nevertheless, are astonishingly strong and enduring and among the most active, graceful and cheerful people in the world. The peasants of Italy, as a whole, are a fine and physically capable race, yet, the majority of them live almost entirely on cakes and porridge of chestnut flour, a little wheat bread and the native wine. Most of the Japanese are vegetarians. The general food of the Norwegians is rye bread, milk, and cheese. The chief articles of diet of the Polish peasantry are bread and potatoes. We all are acquainted with men and women in America of simple habits or even strict vegetarians who are strong, healthy, and cheerful. My experience as a physician convinces me that more people suffer from the "blues", physical weakness, and poor health generally because of too much meat-eating rather than from too little.

Meat Eating in the Light of Science

Let us now consider the problem more technically and scientifically: Meat is not really necessary to sustain either mental or physical vigor or animal-heat. Moreover, the consumption of much meat must be considered as unfavorable to longevity. Meat contains venous blood, which is filled with such poisons as urea, uric acid and cholesterin, with others that would have been removed by the liver and kidney of the animal had it lived. It is a simple fact that, when we eat the flesh of any animal, we take into our system its socalled "waste products", substances that would have been eliminated had the creature not been slain for human food, and which become poisonous in the human body unless they are cast off by the new machinery into which they have been introduced. We, thus, are compelled to get rid of poisons besides those normally our own. It is impossible to avoid the taking into our blood of a proportion of these dangerous substances when we eat meat, and we must take the consequences, whatever they may prove to be. Almost inevitably, there will be some clogging of the circulation.

And it is not alone an interference with the circulation that may be threatened. There may come a possible injury to the principal organs of the body. The heart, the liver or the kidneys may be overtaxed because of the effort necessary to cast off this needless refuse, and a similar demand may be made upon the lungs, which must consume more air, in order to purify the dangerously freighted blood that is making such unusual demands elsewhere. There result indigestion and fermentation, and the whole body is affected for the worse.

Obesity, and Its Cure

Reference has already been made to the feeling of apathy and inefficiency that comes to him who eats too much meat, and especially is this manifested in the disinclination to exercise, which, if taken, might aid in ridding the waste products that are producing such results. Frequently the body increases in weight under such sinister conditions and this but adds to the evil of the situation. Lack of energy induces fatness, and fatness induces lack of energy.

And, what is the remedy for such condition, with too much meat-eating as chief among its causes? In a general way, but, absolutely, the answer is: exercise, as much fresh air as possible, and a prompt reform in the diet." All these are necessary. Sleep with open windows, be out-of-doors as much as practicable, and live, for a time at least, upon the simplest food. These combined measures are practically within the reach of every one that can walk. Breathe deeply; in and out of your living-place, at home or upon the street. Dress according to the season. When walking, do not merely stroll along, but, walk rapidly much of the time, so as to induce a more rapid circulation of the blood and to get the machinery of every part of the body into such action that the waste matter may be cast off or consumed. Walking alone will accomplish much, but, usually requires an effort; for, with the languor of the mind and body, has come also a languor of the will. The deleterious effect of the poison in the system is comprehensive, affecting both body and mind.

As to the diet, although inexpensive, it will, within a few days, become enjoyable,

if the rule about fresh air and exercise is followed. Eat graham or brown bread or biscuits, cheese instead of meat, salads, ripe and only fresh fruit, and drink buttermilk or milk. A little tea, or coffee, will not be especially injurious, although it is better to leave out the coffee. Above, all, eat slowly and chew every mouthful of food thoroughly.

"Fletcherize",— as this method of perfect masticating one's food has come to be called—and it may be remarked here that the world of health owes a good deal to this Mr. Fletcher. He has been the propagandist of one of its best rules. Eating slowly and chewing thoroughly, you will learn the better to enjoy the taste of things. In addition, if practicable, go to bed early and rise early.

And the regimen thus outlined is simply a recipe for ridding the human body of certain "waste products", essentially poisons, that have been allowed to enter it. The remedy is neither expensive nor difficult of adoption, if only the resolve is there. A trial for a week or two will convince the listless and inefficient sufferer. The only demand upon the will-power—and that but a slight one in most instances,—will, at the beginning, be of the sensible experiment.

Now, I am not a "vegetarian" and do not, by any means, advocate a strictly meatless diet. For countless generations, men have lived with meat being a part of their sustenance, and, even now, there are strong races, as, for instance, the Zulus, of South Africa, whose food has, in the past, consisted of meat almost exclusively. However, the conditions of living and of human growth have changed and so have the proper requirements for the sustenance of the human body; the body, itself, has changed in its demands and capabilities. We must adapt ourselves to the new conditions. So, while not advising against the eating of meat at all, I am, most emphatically, in favor of a simpler diet. Were we to eat less of meat and partake of plainer foods, we should be far more healthy.

Our food must, as a matter of course, contain protein; but, as has been shown, we do not require for our physical well-being nearly as much protein as has been supposed. Professor Vort, of Munich, has found that the average man can get along fairly well with about one ounce of protein a day. Progressive physicians now admit that a number of diseases are attributable to the excessive amount of protein habitually in the system, coupled with an inadequate supply of the necessary mineral elements. These lacking, although necessary, elements can be obtained from vegetable food, while the protein, or albuminous matter, also can be had, not alone from certain vegetables (nuts, fruits, grains), but, from eggs, milk, cheese, and fish. These contain all that is required for the body in health, all the fats, salts, and other elements necessary to sustain life and keep man in his highest state of efficiency.

The Economic Aspects

There is, too, an economic side to the question of meat-eating that is worthy of consideration, quite apart from that of health. By the abandonment, or nearly that, of a meat diet, the cost of living very often may be reduced by one-fourth or one-half. If the average housewife will study foods and food-values and also the art of cooking, so that she can prepare appetizing dishes from foods other than meat, she will be able to provide an almost infinite variety of enjoyable and nutritious meals for half the money that her table is costing now, while the food that she offers will be more wholesome. Nor need she eschew meat altogether, either. If one "must" have meat, it is not necessary to buy the choicest and most expensive cuts.

The French, above all others, understand and practice the economics of the table. The French housewife will buy 10-cents' worth of tough meat and, with the addition of 3-cents' worth of bread and a vegetable or two and a few condiments, will prepare a stew that will afford a better dinner for three persons than the average American housewife can furnish with her beefsteak, potatoes, and other vegetables, besides the bread, butter, and pastry, for more than ten times the money. What I mean is, that the former menu will be fully as enjoyable, digestible, and nutritious, as the latter, while obviating the danger of overloading the stomach or clogging the system with the threatening waste products.

As a summary, the point I that am trying to make is, that we must eat less and of simpler and less expensive foods. Why is it that we eat too much? What causes

the feeling of hunger. It is not the gastric juice attacking the walls of the stomach. It is not because the sides of the stomach are rubbing against each other. It is not the distended blood-vessels in those walls. It is not any of these things. It is the *systemic* demand for food. When a man really is hungry, he is hungry all over, his legs not less so than his stomach. A person recovering from typhoid fever may eat a hearty meal, yet, his hunger is not appeased, even though his stomach be distended. The *systemic* want has not yet been met, and, so, his appetite continues.

Habit, too, creates demand. Much of our desire for food is not true hunger, but, rather, an abnormal feeling that makes us imagine that we are hungry whenever it is meal-time. Such a habit can be corrected. A well-known Chicago physician, whom I know well, at one time was a victim of this continuous craving for food, eating four hearty meals a day, but, never feeling in good health. He had will, however, and resolved upon a change. Fifteen years ago, he began eating but one moderate meal a day, taking that in the evening. He is never abnormally hungry now and is in good health. It does not follow that his course must be taken as a model, although it affords an illustration of how thoroughly a morbid inclination may be overcome.

We eat too much, and we eat altogether too much meat.

What is perhaps most desirable, in view of what a broader understanding and simple reasoning dictate with regard to eating is, that the table no longer should be considered as an end, but, only as a means for our betterment and for the greater enjoyment and utilization of our lives. Or, as the saying is: "We should eat, to live; not, live, to eat." New eating-habits must form part of human advancement of the future. It is not, perhaps, too farfetched a simile to say, that the table should be "Christianized", and that the time should come when public sentiment will almost instinctively apply the term "Christian" or un-Christian to our food the same as to our morals.

Blessings of Rational Eating-Habits

As for the rewards of wise eating, it can fairly be said that they include a great part of all that is involved in the full enjoyment of existence, physically—and in material ways, as well as mentally.

With the simple foods, comes health, and health is the most of happiness. With health, come, not merely vigor and enterprise and a new interest in the affairs of life, but, a keener perception and realization of all that is offered and afforded to the one that lives as he should. Even the physical sense of taste improves, so that the table will be approached with more of a gustatory zest than in the days when, with the meat-clogged system, there came a dulled appetite. There comes an improvement in one's appearance. The teeth are cleaner, the eyes shine brighter, the breath is sweeter, and the "complexion" grows finer both in man and woman when the eating-habits are what they should be. And, not only this, but, a greater promise of longevity is assured, greater promise of old-age extended and serene.

And, as the body returns to health, so does the mind. Oppressive morbid fancies disappear. Optimism takes the place of pessimism: hope and fortitude replace fear and flinching. Improved perception reveals hitherto unthought-of opportunities, and the vigorous mind and body seize upon and improve them. Self-confidence has come and, with self-confidence and clearness of conception, swiftness of decision, and the power of easy action, there come the results that we most seek. To become a healthy human being, is, to become a rejoicing power.

Of course, there are broader and greater considerations than partly selfish ones, which must be borne in mind when the question of our dietary is discussed. As we are the heirs of the past, the errors of which have taught us wisdom, so, also, are we the conservators of the future. There is such a thing as heredity and there is such a thing, too, as the influence of example. We will not consider here these questions relating to the conscience. The problem of what and how much we shall eat is one of the moment and, by saving ourselves, we shall accomplish that which is best for our descendants. We must eat less and largely abandon the eating of so much meat. That is but common sense, and attention to it holds out a great promise. I can think of no better advice to give in closing, than for all to follow this little guidepost to health and happiness. Eat less and play more. Indulge in less fret and fume and enjoy more fruit and fun.

What Others are Doing

STEROLIN: A HAND-DISINFECTANT TO REPLACE RUBBER GLOVES

In the *Chemiker-Zeitung* (1913, p. 1247) there is described a liquid for disinfecting the surgeon's hands, so that rubber gloves may be dispensed with; the formula given being:

Acetic acid, Gm. 2.
Castor oil, Gm. 2.
Peru balsam, Gm. 3.
Strongest alcohol, Gm. 93.

The surgeon thoroughly wipes his hands and wrists with wads of absorbent cotton wet with the liquid, continuing for about two minutes, and taking a fresh pledget of cotton every time he wishes to take up more of the liquid. After permitting the alcohol entirely to evaporate he repeats this performance. As soon as the hands have become completely dry the second time, he may begin to operate. In the case of inflamed tissues, a single such treatment is considered sufficient.

The assertion is made that this sterolin not alone washes away the superficial germs, but, penetrates into the skin-pores and there glues them fast temporarily. This is the magic "varnish" or "liquid gloves" about which lately astute newspaper reporters have been growing enthusiastic. (Copied from February, 1914, CLINIC, p. 155.) Additional information anent this subject will be found in the Query Department. (Page 811.)

THE UNIDENTIFIED PANDEMIC DISEASE (INFLUENZA?)

The American Journal of Medical Sciences for September contains an interesting study of "influenza" under the above title, contributed by Major Dudley Roberts, of the Medical Corps, U. S. Army. His communication is based upon observations in about 1500 cases at the Columbia War Hospital, Williamsbridge, New York, and about 200 cases at the U. S. Army General Hospital No. 25, Fort Benjamin Harrison, Indiana.

In view of the frequency with which pneumonitis complicated the influenzal disease, it is interesting to reproduce the classification offered, Major Roberts having found that, clinically, the cases fall rather sharply into four groups.

Group 1. Mild Peribronchial Cases. These patients do not seem much worse than those that recover completely in two or three days. The temperature is virtually normal; but, they continue to cough and feel ill, frequently breaking out with a cold perspiration on the slightest exertion. While the physical signs may not be conclusive, the radiograms show more or less peribronchial infiltration. They continue to cough and feel weak for several weeks, and, during this period, probably are a source of danger to those about them.

Group 2. Recrudescent Cases. After from one to seven days of apparent convalescence from a mild form of the disease, a few patients were suddenly seized with a chill, coughing, bloody expectoration, and rise of temperature. As a rule, these patients immediately gave signs of massive consolidation. It seemed probable that there had been a cross-infection in the wards after recovery from the original infection.

Group 3. Severe Toxic Cases. Usually from the onset, a severe infection evidenced itself by the patient's appearance, the bloody expectoration, and the harsh breathing-sounds throughout the chest. Frequently it was obvious that the outlook was hopeless, solely from the critical inspection, rather than because of any definite evidence of cardiac failure or pulmonary inflammation. The sputum in these cases is either thick, tenacious, blood-tinged, or, less frequently, a thin serosanguineous fluid or, even, pure blood.

Group 4. Cases of the Fulminant Form. The course of the disease is, occasionally, very rapid, death following the time of "giving up" by only a few hours. The cyanosis is extreme, the dyspnea and anxiety are frightful to behold. In this group, the congestion, exudation of serum, and actual hemorrhage into the bronchi and alveoli is exceptionally severe and the patient is

drowned in his own fluids. The pulmonary edema is not a result of cardiac failure, but, of an unusual reaction of the tissues to this peculiar infection.

It was found that a fatal outcome in pneumonia occurred but rarely either before the fifth day or after the eleventh day. Recovery by crisis took place in only one-fifth of the cases, and, in this disease, crisis evidently is not the striking phenomenon that it presents in lobar pneumonia.

The mortality in the disease has been from 5 to 10 percent of the individuals affected and from 25 to 40 percent in all cases of recognized pneumonia. Death does not come essentially because of heart failure. Ordinarily, the respirations become shallow and rapid, the dusky pallor grows more pronounced, and consciousness is constantly clouded.

As for the treatment, Major Roberts declares that, aside from rest in bed and isolation from other patients in order to prevent cross-infection, it was unnecessary and useless, in the majority of cases, to attempt to interfere with the course of the disease. Even the relief of symptoms by means of drugs was found unsatisfactory. [This has not been our experience or the experience of many practitioners that have written to us regarding their observations. —Ed.]

For the purpose of determining whether any thing can be done to limit the spread of the inflammatory process and assuring recovery, a well-controlled series of patients was treated by administering mixed vaccines hypodermically, immediately after admission. But, with no apparent result. It seems possible, Major Roberts adds, that the increase of the dose of the injection to the point of causing a protein-reaction would be justified, as a routine, as soon as possible after the onset of the attack.

Major Roberts records that, on October 3, 1918, the intravenous injection of a mixed influenza-vaccine was started, because of the appalling mortality under an expectant plan of treatment. Contrary to the original idea, the conclusion soon was arrived at that good results were secured only when the injection caused a definite "reaction."

Major Roberts regards the exact composition of the vaccine as a minor matter, laying stress more particularly upon the production of the reaction. This reaction consists in a chill or a definite chilly sensation occurring one-half hour after the injection, accompanied by a rise in the pulse rate and some times by a slight fall in temperature. The temperature then rises, quickly reaching its maximum within one-half to one hour, when, as a rule, it falls sharply, but, usually rises again. The rise following the chill always is transitory and will be overlooked unless the temperature is taken every half hour. The subsequent recession may be down to normal after the first, second or third injection, the disease terminating by crisis.

After the chill, the patient almost invariably feels greatly improved and the change in appearance and lung-signs often is striking. The injections have been routinely repeated every twenty-four hours, although a shorter interval may be found to be advantageous. No ill effects have ever been attributable to this method of treatment.

This mode of treatment was followed by a decided diminution of mortality. In a series of 200 consecutive cases of definite influenza-pneumonia treated according to this plan, the mortality was 9.6 percent. This was in striking contrast with a series of 86 consecutive cases treated under an expectant plan, with a mortality of 31.3 percent.

While under this plan of treatment not all victims can be saved, Major Roberts is convinced that many that would have died recovered promptly in a most striking manner. He concludes that the production of manifest reactions by means of nonspecific protein-injections presents great possibilities in the treatment of any acute infectious disease, particularly, though, of one of unknown etiology and, consequently, offering no possibility of producing an immune animal-serum.

THE TREATMENT OF PUERPERAL SEPTICEMIA, A SPECIAL CONSIDERATION OF INTRAVENOUS STERILIZATION WITH CHLORAZENE AND EUSOL

It is said that more than eight thousand women die every year in North America from puerperal septicemia; while many thousands more go on to only partial recovery and chronic invalidism. Easily 95 percent of this appalling mortality and

morbidity is preventable by a minimum of interference and a flawless technic.

Puerperal infection, as a rule, is due to the carelessness of the doctor, midwife, nurse, or other persons in attendance, although occasionally cases occur in which it is difficult to fix responsibility.

Gordon G. Copeland (*Canad. Med. Quarterly,* Sept.) says that, in the treatment of such cases, it is desirable to build up the resistance of the patient by rest in bed, plenty of fresh air and sunlight, plenty of fluids, a liberal diet, and quinine and hexamethylenamine by mouth when indicated. Usually, the uterus should be left alone, interference often doing more harm than good by converting what may be a local process into a general septic condition.

When the specific organism has been demonstrated in the bloodstream or the clinical course indicates its probable presence, an antitoxin may be of great advantage if given early and in large doses.

Puerperal septicemia usually is a bacterial or bloodstream infection; therefore, the logical and by far the most effective mode of attack is in the bloodstream itself by intravenous treatment.

As a result of his own experience and that of not a few others, Doctor Copeland believes that we now have in certain chlorine compounds new and powerful therapeutic agents.

The intravenous injection of chlorazene (chloramine-T) and eusol on the one hand and of certain arsenic preparations, such as salvarsan, galyl, arsphenamine, diarsenol, arsenobenzol, has been proven beyond doubt to be powerfully germicidal, and several of these are also antitoxic against many of the organisms usually found in this disease, as well as other bloodstream infections that are not puerperal; moreover, in proper doses these drugs do not seem to be harmful to the woman.

His own personal results with chlorazene and, to a very limited extent, with galyl, have been strikingly good. On inquiry among men doing progressive work in obstetrics, it was found that they had had similar results.

Given in a suitable manner, both chlorazene and eusol have not had any serious bad effects such as are reported of salvarsan and allied products. Still, we have heard of death following eusol given intravenously undiluted, so, one must use great care with these drugs until they are thoroughly investigated. Carrel-Dakin solution given intravenously has caused hemolysis and is, therefore, dangerous. Although a rigor has followed the intravenous injection of chlorazene solution, a similar rigor had occurred in this patient, the day before, as a result of the disease. An occasional rigor would seem to indicate that the maximum dose had been given. The doses advocated are the largest that should be given and are for large women. A smaller dose should be used for small women.

It may be said with fair certainty that, when a diagnosis of puerperal bacteremia is made, and if then 400 mils (Cc.) of ¼-percent of chlorazene in sterile saline solution is injected into the bloodstream of the infected woman, under aseptic precautions, we may expect the organisms to be killed and their toxins disposed of. If no further organisms enter the blood, this may in itself lead to recovery. If foci of infection remain to reinfect the blood, they should be dealt with locally, if visible, or by further injections of chlorazene, eusol or arsenic preparations at 4 to 5-day intervals. Until animal experimentation with these chlorine compounds shows wherein are the limits of safety, we should go slowly lest we unwittingly do our patient damage.

Mode of preparation of chlorazene solution.—Remove three of the 4.6 grain tablets of chlorazene [Abbott's preparation has been used by the author, as it was the first available, and the results here spoken of have all been made with this firm's products] from an original bottle with dry sterile forceps, and drop into a sterile flask containing 100 mils (Cc.) of cold sterile water, preferably freshly distilled. Allow to stand an hour. [Solutions of chlorazene and eusol should not be heated, as this drives off the active agent, chlorine. If this point is not observed, failure will result. This might account for some poor results with eusol.] The tablets being dissolved, the solution is diluted with 300 mils (Cc.) of fresh saline solution warm enough to bring the whole solution to just blood heat. This is injected, under aseptic precautions, into a suitable vein.

Case Report.—Mrs. Mary N——e, age 25, in apparent health, 2-para, in labor at

full term for 6 hours; no vaginal examinations were made; presentation L. O. A.; labor was easy and normal throughout. No anesthetic was necessary; there were no lacerations of the perineum. The afterbirth was expressed complete; there was no hemorrhage or shock, absolutely no interference; a perfectly normal labor. On the second day post partum, the woman became violently ill, had a high fever, 103° F., and a rigor; the condition was clinically that due to a typical streptococcus bacteremia. The woman was isolated and a blood culture was taken. Then the patient was propped up for drainage, given lots of water and fresh air and a nourishing diet; quinine and urotropin were given by mouth. No internal examinations were made as they seemed quite uncalled for and only could do further damage. The condition rapidly grew worse and on the third day the temperature had risen to 105° F. at 4 p. m. She was desperately ill. At this moment, the report came from the laboratory that the blood culture was teeming with virulent streptococci. An injection of chlorazene was given intravenously. The temperature continued to rise to practically 106° F., when there occurred another rigor and the patient was in extremis. Stimulants were given, with beneficial results, though, for a time, it looked as if the woman were going to die.

The next morning, the patient was sitting up in bed knitting, apparently almost normal, and quite happy; the temperature was just over 97°, and she made an uneventful recovery. Further blood cultures proved negative. The bloods of both, mother and baby, gave a plus-4 Wassermann reaction, and they were treated for syphilis by means of galyl for the mother and calomel inunction for the baby. Seen nine months after, both mother and baby appeared quite well.

Doctor Copeland has a series of 12 cases of puerperal septicemia in which he used chlorazene by intravenous injection. There were two deaths. All but two were sent in already septic, or were seen in consultation.

ON THE TREATMENT AND PREVENTION OF PANDEMIC INFLUENZA

In his observations made in about four hundred cases of influenza seen among the Students' Army Training Corps, at West Virginia University, Morgantown, Prof. Aaron Arkin (*W. Va. Med Jour.* Oct.) became convinced of the undoubted value of the antipneumococcic sera in cases of pneumococcus pneumonia. For the purpose of selecting the suitable antiserum, he says, the type of pneumococcus present should be determined by the Avery, or mouse, method. In type 1 or 2 infection, the serum seems to be specific, while it is of less value in the other types. Out of 20 cases of postinfluenzal pneumococcus pneumonia treated by Doctor Arkin with a polyvalent antipneumococcus serum, only 3 ended fatally. The serum was given as soon as physical signs of pneumonia were discovered.

All pneumonia patients were given digitalis as a matter of routine, the rest of the treatment being symptomatic as there is no specific drug treatment. "Plenty of fresh air but avoiding chilling of patient, liquid diet, catharsis, aspirin 15 to 30 grains per day constituted the early treatment of the influenza patients." [The original reads "Grams," but that undoubtedly is a typographical error. Even 15 to 30 grains of aspirin per day if continued over several days may result in circulatory depression. —Ed.]

As for prophylaxis, Doctor Arkin asserts that there is no vaccine (bacterin) that will prevent influenza. Pneumococcus bacterins will protect against the secondary pneumococcus pneumonia. Perhaps, the streptococcus bacterins will protect against streptococcus complications. Quinine in solution (1:10,000) or a spray of dichloramine-T (2 percent) in chlorcosane are of value in protecting against pneumococcus infection. According to Professor Arkin, the general preventive measures are as follows:

1. Strict isolation and quarantine;
2. Reporting of all cases;
3. Proper face masks used by all attendants; perhaps also goggles;
4. Disinfection of all mouth- and nose-secretions;
5. Careful disinfection of hands;
6. Sterilization of all eating utensils, especially at soda fountains, restaurants, and so forth;
7. Prohibiting of spitting and coughing;
8. Stopping of unnecessary public gatherings;
9. Sheet-cubicle method of separating beds in wards of hospitals, or home.

Let's Talk it Over

INFLUENZA, GRIP, PNEUMONITIS

THERE are several things about the past and present epidemics of influenza that have not been mentioned in print, but, which, nevertheless, are of importance to the profession.

I may say that I have paid much attention to the late epidemic of grip (influenza) from its beginning in the early part of September 1918. The reports printed in the press aroused interest and stimulated curiosity from the start, especially after my dealing with a few cases and consulting with several physicians about the 1890 and subsequent epidemics. In this communication I wish to bring out a few phases of treatment, both medical and psychological, that I regard as of interest, not alone with reference to influenza, but, also, as to other diseases.

Harm Done by Quarantine.—First of all, those who have been close observers will agree with me that many procedures in the management of influenza have done vastly more harm than good. These are, notably, quarantine and wrong teaching. Fear of quarantine has caused more deaths than did the disease itself, for, people would not send for a physician until it was too late. Moreover, friends, neighbors, and even relatives were prevented from giving needed assistance to those stricken, because of the quarantine.

A visiting nurse asked this question: "Why is it that the Negroes of our city are not afflicted and that not as many die from influenza as do our white people?" This was the answer: "Simply, because the board of health does not interfere with them. When a Negro gets sick, his people send for a physician, while the neighbors are not afraid to help take care of the patients." On the other hand, influenza was so thoroughly advertised as a most contagious disease, a disease that may attack anyone coming near the sick, that people would not venture to go near them, leaving them to their fate. Indeed, it was impossible to obtain nurses, especially for poor people unable to pay for nursing. The hospitals were filled to overflowing, so that there was no refuge there.

Studying every case of influenza as to its cause and effect, I have not found one that was not brought on by taking cold, by reason of insufficient clothing, exposure to wet and cold, chilly, insufficiently heated rooms and the like. Many persons, when they have caught cold, do not take care of themselves, but, try to "wear it out"; keeping up until they collapse.

Influenza Not Contagious Nor Acutely Infectious.—Influenza is neither contagious nor acutely infectious; with ordinary care, one will not contract it. Anyone catching cold will have influenza, whether he be in the same house with a victim or miles away from any case. Let me give two illustrations:

Case 1. A family of ten children and a widowed father. One of the daughters, 14 years of age, acted as housekeeper. Five were in bed with influenza, one little fellow of four, who was not allowed to go out at night, had a slight cough, but, did not get ill enough to be put to bed. The little housekeeper was instructed to take care of herself and was given some medicine to keep her bowels open. She did not contract the disease, although she waited on all of the others, cooking for them, feeding them, and administering the medicines much of the time. The father was requested to stay at home and help to take care of the family, and did so for fully two weeks.

Three of the older children were allowed to keep at work, and came home every evening. None of them became sick enough to have to quit working. The father, who took care of the sick children nearly all day and night, remained entirely free from any symptoms, even of a slight cold. In short, those who were instructed how to care for themselves, remained free from the disease.

Case 2. Family of father, wife, and their 4-months-old babe. The father came down

with "pneumonitis". The wife, not having been out and hardened to the weather since her confinement, had to take care of the husband and do all the chores; day and night, bring in the coal, empty the ashes and slop, wash baby's clothes, and so forth. She soon contracted the disease, so that both were in bed now. The wife's sister came to take care of the two sick people and the infant, in addition to two soldiers on furlough, a brother of the wife and a brother of the husband. All three were instructed how to take care of themselves and the infant for three weeks. Not one of these four contracted influenza.

Concerning the Treatment.—Let me state at the start that I do not treat the same of the disease, but, rather, the conditions present.

Ordinarily, all patients exhibiting the usual primary symptoms of influenza require, as a rule, about the same treatment; nevertheless, it is advisable to investigate well before we prescribe, for, the conditions may differ greatly in different patients, and the first course of treatment may be of greatest importance.

In many of the fever-cases of adults, I begin with a course of calomel, soda, and podophyllin compound, followed, one hour after the last tablet was taken, by a laxative saline draught. This, as a sheet-anchor can not be excelled in most of the infectious cases.

The tablets that I carry, contain: Calomel, gr. 1; sodium bicarbonate, grs. 2; podophyllin, gr. ¼; ipecac, gr. ¼. Dose: one tablet every half hour, repeated two, three or four times. One hour after the last dose, a laxative saline, preferably a teaspoonful of epsom salt in a glass of hot water is to be taken. This is repeated every half hour until the bowels move. If the bowels should not move in one hour after the last dose, an enema of plain warm water is given—not soapsuds or any other medicament. Rather, I repeat the warm-water enema in one hour after that, if required. This usually relieves the congestion and paves the way for future medication.

Children receive the same course, graded according to age, of course. The compressed tablet is divided into 1/16ths, ¼ths, or ½s, or, one may use the 1/10-grain tablets and follow the same course.

In order to make the saline draught palatable, I dissolve the epsom salt and sweeten it well. I make the solution concentrated, so that it may be dispensed in teaspoonful doses. The calomel tablets may be crushed and mixed with sugar, for the same reason.

Prophylactic Measures.—As a prophylactic for influenza-pneumonitis, adults are ordered to take 2½ grains of iodized calcium every two or three hours, children, 1/6 to 1 grain. The nurse is instructed to crush the tablet and mix with sugar and place the powder in the mouth, allowing it to dissolve and be swallowed with the saliva. This greatly aids in stopping the tickling cough and relieving the sore throat.

Interdict drinking cold water. The cold increases the congestion, causes more thirst, increases the catarrhal mucus in the stomach, and retards every effort for recovery. Hot water dilutes the mucus in the stomach, assists nature by reducing the congestion, favors diaphoresis and elimination, while being a stimulant and tonic. I interdict cold water in all my fever-cases. It is remarkable how much better patients do with hot instead of cold water in all fever-cases, including throat-cases, such as scarlatina, diphtheria, tonsillitis, and so forth.

I usually leave some 2½-grain tablets of iodized calcium, to be given every two to four hours for a day or two, to be followed the next day by calcium sulphide, 1 grain for adults, 1/6 grain for children, repeated three or four times a day. I also tell how to handle the case. Often this one call is all that is required. The family is directed to let me know how the patient is getting along. I instruct them to keep the patient warm, but, not so that he sweats; give nothing to eat, at least no solids, for a day or two, and let him drink much *hot* water.

If Pneumonia Supervenes.—If pneumonia supervenes, I order a sweater-jacket to be put on the patient, designed to cover the chest, neck, shoulders, and buttocks. I prefer a woolen sweater to a cotton jacket.

The cough is controlled and the nose protected with a mixture of 1 to 2 percent of camphomenthol oil in liquid paraffin, applying 5 to 15 drops as often as required to overcome the tickling cough and sore throat. The same oil is used in the nose by twisting a film of cotton wool around a toothpick, which the patient or the nurse is instructed to apply up in the nostrils. It not only stops the coryza and clears the nose, but, it heals the mucous membrane.

If the cough is severe, I furnish a coryza-tablet containing camphor, atropine,

and quinine, also a combination consisting of atropine sulphate, 1/600 grain; tincture of aconite, U. S. P., 1890, 1 minim; calomel, 1/6 grain; and morphine sulphate, 1/36 grain. One of each of the granules is given every three or four hours.

If this does not control the cough, I instruct the patient to place one or a part of one of the coryza-tablets in the mouth and allow it to dissolve slowly by holding it between the gum and the cheek. Thus, the patient is relieved of his cough and can sleep without being disturbed. This is an excellent way to control cough in pregnant women suffering from influenza.

To control the fever in influenza, pneumonia, gastroenteritis, typhoid fever, and so forth, I give no coaltar preparations, because of the ill effects often resulting. I have been called to patients to treat after-effects (at least that is what I attributed the complications to), weakness and deferred recuperation, several instances in which the pulse rate was as low as 42 per minute and alternating one beat in four, the patient so weak and cyanotic that dissolution seemed but a question of a short time. [It seems incredible that any physician would push coaltar derivatives to such a degree of depression. Rightly used, they certainly do not produce it, according to our experience.—Ed.]

To Combat the Bad Consequences of Coaltar Preparations.—Having treated several of such cases after the physicians seem to have made failures, it may be well to outline a general plan of treatment that has proven successful in my hands.

Heart stimulants, of course, present one of the first indications that come to mind. I seldom give a hypodermic in these cases; a few minutes' time ordinarily is of little moment in cases that have been progressing for days or weeks, although a sudden collapse may have come on. Mostly there is exhaustion. The first thing to do is, to give a granule of glonoin and one of the "dosimetric trinity," to be crushed and dissolved in the mouth. This will satisfy the patient until a regular diagnosis is established and the medicine prepared.

Here, then, I prepare a solution of 25 granules of the "dosimetric trinity" and 10 or 15 granules of glonoin in 25 drams of water, to be taken in teaspoonful doses every three or four hours until improvement begins, thereafter three times a day, three hours after each meal; this being kept up for several days.

For promoting the lagging appetite, I prescribe a mixture of tincture of nux vomica and of quassia, in a little water, half an hour before meals, and, if needed, some such digestive as papain compound, taken with a glass of hot water, two hours after meals. Hot water seems to be one of the best stimulants in these cases, while cold water chills the patient.

Management of the Infectious Fever-Cases.—When called to a severe case of pneumonia or other case of infectious fever, I prepare the medicine and usually administer a dose of it, and I stay long enough to show how to manage the patient. I instruct the attendant how to count the pulse; I leave two preparations for the control of the fever, namely, the "defervescent compound No. 1" and the "dosimetric trinity No. 1"[1]; also, if indications seem to indicate, I leave sufficient glonoin.

I tell the attendant to give, when the pulse beats 130 or more, a teaspoonful of the fever-mixture until the pulse count is ten or twenty beats less, that is to say, has gone down to 120 or to 110, then to give a dose only every three hours. If the pulse will not go down, then apply a hot-water stupe (a towel wrung out of a 2-percent solution of epsom salts) or a turpentine stupe of 15 drops of the oil to each pint of hot water, applying over the abdomen and chest and covering with a dry cloth.

If the pulse should go still lower, or if the fever should disappear entirely, or if the patient should show weakness, then leave off the fever-medicine (the defervescent mixture) and give the dosimetric, or heart-stimulant, every half hour, one teaspoonful until improvement sets in, up to four times, then every three or four hours. In this way, the temperature can be controlled almost to perfection, provided the alimentary canal is in proper condition.

The mixture for fever consists (for adults) of 25 granules of the defervescent compound No. 1 in 25 drams of water, in a glass labeled with full instructions.

The heart-mixture usually consists of 25 granules of the dosimetric trinity and 10

[1]Defervescent Comp. No. 1, contains, Aconitine hydrobromide, gr. 1-800; Digitalin, gr. 1-64; Veratrine hydrochloride, gr. 1-128.

Dosimetric Trinity No. 1, contains, Aconitine hydrobromide, gr. 1-800; Digitalin, gr. 1-64; Strychnine arsenate, gr. 1-128.—The differential indications are self-evident.—Ed.

or 15 granules of glonoin in 25 drams of water, in a glass also labeled with full instructions.

For children, according to age, the same number of drams of water, but 1 granule for each year and 1 extra; that is, for a 2-year-old, 3 granules, and so forth.

The mixture for children is sweetened so as to taste pleasant; also, for adults, the defervescent (fever) mixture is sweetened, in order to prevent nausea. Some people are nauseated by the aconite-mixture if it is not sweetened.

The dosimetric (heart) mixture I prefer to use without sugar, because it will give better and quicker results with its natural taste.

The other remedies, the remedies that are of prime importance and upon which I depend, are those that will cause a proper cleaning out of the bowels, and they usually are begun in fractional doses of calomel and podophyllin. Then, one hour after the last dose of the former, follow with a laxative saline solution, also in broken doses, every half hour until the bowels have moved or three or four doses. If the bowels do not move in one hour, the attendant is to administer an enema of warm water; after which, the bowels are seen to so that there is an evacuation at least twice a day.

If the fever continues, a small dose of the laxative saline is administered two or three times a day, ordinarily one-half hour before breakfast and a half hour before supper.

When the bowels are in active condition, the fever usually is controlled with little or no trouble. Intestinal antiseptics may do some good, and there is no reason why recourse should not be had to them, and, depending upon the conditions, they may do much to hasten recovery. .

Enemas of Great Value.—If there is much internal fever, dryness and redness of the tongue, restlessness and so forth, conditions often (mostly) owing to toxemia in the alimentary canal, an enema of warm water will give great relief. The same thing may be said of bloatedness, an enema usually relieving that, too.

When the patient does not improve after the saline taken internally, order an enema of warm water, to empty the colon, this to be followed one-half or one hour later by an enema consisting of a tablespoonful of epsom salt, a teaspoonful of sodium bicarbonate, and a teaspoonful of table salt dissolved in a pint of water. This is to be retained all night, if that is possible. This saline enema is to be commended in all cases of inflammation of the intestine, when much gas fermentation results from the ingestion of salines by mouth, also when it is desirable to reduce the medication by way of the stomach. [It would be well worth while, we believe, to employ chlorazene in these cases.—Ed.]

It is wonderful how quickly and comfortably the saline enema relieves the fever in the colon in cases of typhoid fever or of enteritis from almost any cause. It is a last resort trying to save a victim of spinal meningitis or of fever in the abdomen owing to almost any infectious disease. A patient's life may be saved by this means after his becoming moribund, even when the sphincter already ceases to react. If the injection is discharged, wait one-half or one hour, then repeat the dose.

Another most effective remedy is *hot fomentations,* especially the epsom-salt and the turpentine-stupes. I have, again and again, ordered a hot turpentine-stupe (15 drops to the pint of hot water) to be applied over the abdomen of a typhoid-fever patient when he was considered beyond aid. Using the hot turpentine-stupes at this time as the main remedy will save the patient. This and the hot epsom-salt stupe should not be forgotten in abdominal fever or inflammation, the result of infection of any kind. Let me once more repeat that cold water must not be drunk nor ever applied in any case of fever. Let the patient drink all the hot water he wants, it will do everything that cold water can to benefit him, yet, do no harm. Hot-water applications will reduce the fever and stimulate the patient, never doing harm.

Patients treated in this manner will seldom be troubled with much delirium, they do not get so thirsty and cough very little. Cold water increases the production of mucus (slime); consequently, fever and thirst.

The Error of Quarantining for Influenza.—I had only one death from influenza complicated with pneumonia, or pneumonitis, following influenza, in which I was the first physician to be called. It was a boy of four years, every one of the whole family of five people being sick, and to whom neither relatives nor neighbors would come to give help before this boy was in danger of death. The only reason for not

coming in to help this sick family was, the quarantine placard, which forbade any person to enter or leave the house, under threat of prosecution.

I wish to state here, that I have given special attention to the contagiousness of this socalled Spanish influenza during this epidemic, beginning with September, 1918, and am still making observations, besides having consulted with other physicians who study this disease, and I have become firmly of the opinion that there was, and is, no more danger of contagion than from the well-known grip. We may as well quarantine the atmosphere as the influenza, as a means of preventing the spread of it.

The next common error is, the socalled "fresh-air" craze. The patient is to lie in a room with windows wide open. This causes draughts, and the patient catches cold every little while. Relapses, also, often result from this error, while, frequently, this is the cause of patients not rallying enough even to become subject to relapses; since they die before relapse can take place.

I instruct the nurse to open windows opposite the side from where the wind blows; then the impure air will escape and no wind will strike the patient.

If the room must be aired quickly, the patient must be covered well, the nurse staying in the room with the patient until the doors or windows again are closed.

There are two classes of cases in which, it seems, I have had particular success during this epidemic.

The first are cases of pregnancy complicated with pneumonia, cough, and influenza. The treatment is along the same order as described in the foregoing, except that I devote particular attention trying to stop the cough, while avoiding opiates as much as possible. If the cough is controlled, there is no danger of abortion or miscarriage. Fortunately, I have lost none of these patients. However, it may be in place, to tell of two extraordinary cases in my experience.

A woman, pregnant in the eighth month, suffering from influenza complicated with pneumonia and edema of the lungs, and as to whom, by the way, the husband was informed by her attending physician that there was no hope for her recovery. I was sent for as a last chance. I found her coughing constantly and hardly able to breathe, owing to serious interference by the frothy accumulation from the lungs. As there seemed to be no hope, I resorted to heroic measures. I gave her three tablet-triturates, one consisting of morphine sulphate, gr. 1/36; atropine sulphate, gr. 1/600; tincture of aconite, U. S. P. 1890, 1 minim; and calomel, gr. 1/6; another consisting of quinine sulphate, gr. ½; ammonium chloride, gr. ½; camphor, gr. ½; opium, gr. 1/10; extract of belladonna, gr. 1/10; and extract of aconite root, gr. 1/10; the third one containing morphine sulphate, gr. 1/12; atropine sulphate, gr. 1/600; and caffeine citrate, gr. 1/6; the three given at one dose. At the same time, a tablet-triturate of 1/100 grain of glonoin, to be dissolved in the mouth, and this followed by another, a coryza-tablet containing camphor, to be dissolved in the mouth. I ordered a hot-water-bag to the feet, with shoulders and arms kept under cover. She begged for cold water, but, this I interdicted, ordering hot water as much as she wanted to drink.

I remained with her about four hours, and instructed the neighbor woman nursing her how to watch the case, how to administer the medicine, and so forth. I provided a heart-tonic, and ordered a saline enema as soon as that could be administered. This was done while I was there, and a saline enema was to follow after the bowels had moved, the enema to be retained, or to be repeated if it came away. The enema consisted of a tablespoonful of epsom salt, a teaspoonful of table-salt, and a teaspoonful of sodium bicarbonate, in one pint of warm water. This was to reduce the fever and to quiet the cough.

The frothing at the mouth began to grow less within one hour and the cough almost disappeared. The woman made an uninterrupted recovery, and I delivered her of a healthy girl about four weeks after that strenuous night, entirely well now. You will notice that the opium given was not enough to injure the fetus, and the antidote balanced it very well.

Another similar case did not pan out so well, although it was equally successful in so far as the recovery of the mother is concerned. This woman had not been quite so near to death's door. It was her first spell of severe sickness and she had had no doctor to treat her for influenza and pneumonia complicated by edema of the lungs. After she was out of danger (convalescent), she still was troubled with some cough, but, especially with some wakeful-

ness at night, was not getting well and strong as quickly as she and her neighbor friends thought that she should. One day when I called again, I was informed that my medicine would not make her sleep enough, so, they had sent for another doctor, who gave her medicine which assured her rest. She was pregnant in her fifth month. I found a small vial containing camphorated tincture of opium, of which she was to take so many drops every four hours. She showed the effects of it then.

In about one week, she aborted a dead (blue) fetus. Had she gone on with my treatment, that would not have been the result. Opium is not well borne by the fetus, but, when given in small doses, protected with atropine as above described, there is little or no danger. The camphorated tablet is of value for controlling the cough, especially when allowed to dissolve in the mouth.

It seems I have had my share of pneumonia complicated by edema of the lungs, but, fortunately, had no deaths, except where the patient was moribund at the time I was called for the first time. Patients that had been in the hands of other physicians or had not sent for a physician until too late, died within two to five hours after my visit at the bedside.

One of the most helpful remedies in these cases is, the hot wet compress or stupe over the chest and abdomen. I prefer the turpentine-stupe when not counterindicated. Some patients do not bear the oil of turpentine well. For those, I prescribe the epsom-salt stupe, of 2-percent strength, and where there is danger of too much turpentine this is an excellent substitute.

No Milk for Fever-Patients.—It is remarkable how much harm is being done by feeding milk to fever-patients, even to patients whose digestive power is reduced to almost nothing. This applies to grownups as well as to infants and children. All else goes well, but, doctors cannot understand why the patient is troubled by biliousness, gas, fever, and so forth.

Milk, when drunk, forms large tough curds, which are indigestible, putrefy, irritate, and form toxins. If milk is mixed with cereals, the curds will be small and not so liable to form toxins, the small curds are likely to pass through the intestine without causing any irritation, and are not so liable to give rise to the formation of green mucus. One of the first instructions should be, to take the infant from the breast and to feed it barley-water or some thin broth from other cereals, until the child's digestive organs are improved. Adults should be warned not to drink milk during the fever-stage or during the period of inability to digest foods. If milk is to be ingested at all during such a time, it should be mixed with cereals, such as well-cooked oatmeal, farina, rice, and so on. Milk and toast do well with some, the question in the main being to prevent the formation of large indigestible curds.

As for toxic conditions caused by indigestion, these include spasms of almost every nature, including cerebrospinal and others. The first thing to do should be, to empty the bowels. If not possible to give medicines by mouth, then do so per rectum—warm-water enemas, following with a saline solution, to be retained as long as possible. High fevers, with spasms, yield to this treatment in a remarkable manner. I prefer the epsom-salt, soda and salt solution.

For an infant, I prescribe epsom salt, drs. 4; sodium bicarbonate, dr. 1; table-salt, dr. 1, dissolved in 1 pint of warm water. Inject with an infant-syringe, 1 or 2 ounces, causing it to be retained as long as possible, and repeating as often as it seems necessary, every one to four hours.

For an adult, inject the whole pint, and repeat in one hour if the first dose is not retained. This will reduce the fever and quiet restlessness in nearly every toxic case, resulting from inflammation of the bowels or even of the lungs. And you can not beat this for paratyphoid and typhoid fevers.

R. Willman.

St. Joseph, Mo.

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[While we cordially commend Doctor Willman's well-considered therapy in these cases, we can not agree with him in all his theoretical considerations. The infectious nature of influenza is not disproved by his arguments; also, a *reasonable* quarantine is surely advisable.—Ed.]

INFLUENZA STATISTICS AND ITS TREATMENT

While I have no particular desire to rush into print, still, I am full of "flu" and must unload on someone; and, as you peo-

ple are always cheerful about such things, you are my victims.

Most of the articles that I have seen on the subject of influenza deal with possible causes, pathologic findings at portmortem examinations, and so on. My cases were few in comparison with those of others, perhaps; nevertheless, I have worked out a part of the treatment to something like a definite plan. If there is such a thing as a specific treatment, I should like to hear of it; if not, I hope THE CLINIC will publish a detailed plan of treatment of the symptoms that arise.

During the late epidemic, I was the only doctor in a country-practice district comprising about 700 families. A few of the cases went to outside doctors.

The first typical influenza-case in this district occurred on October 6, 1918, and the last one on March 5, 1919; a period of five months. In that time, I attended 457 cases. These, together with those patients that went to the outside doctors, represents less than 15 percent of the population

According to the statistics so far available, there does not seem to be a very marked variation in the different localities in the percentage of people affected. The disease seemed to be more active where people were crowded, that is, where too many people were in one house. Before and since the epidemic, there have occurred sporadic cases that might be cataloged as influenza; however, as they lacked the typical features of the epidemic, I have excluded them from this report.

Among my 457 cases, there were 37 marked pneumonias, with 5 deaths. Twelve pregnant women had the disease with no pneumonia, or miscarriage or death following.

The largest number of cases under treatment at one time was 82. The largest number of cases that I saw in any one day was 52. They were scattered over a territory of 25 by 30 miles. I mention this because, in my case, as well as in the case of hundreds of other overworked doctors, it had an important bearing on treatment and results, on account of the time-element per case. This scattering of the patients interfered with careful treatment. But, a similar condition prevailed everywhere. It seems to me that the mortality can be largely attributed to this condition. The treatment was, of course, symptomatic. For prophylaxis, I tried Mayo's vaccine, but, am not satisfied that it was of much value. I tried calcium sulphide, without benefit. Vapocresoline proved of service. Creolin, vaporized and sprinkled on the floors was useful. When I no longer could get vapocresoline or creolin, I used "sheep-dip" with equal results. The benefit consisted in, frequently, limiting the number of cases in that particular family in proportion to those originally infected.

This, briefly, was my treatment:

Headache: I tried aspirin for a little while, but, did not like its effect. Later, I relied upon gelsemoid, and this proved fairly satisfactory.

Cough: Apomorphine mostly was useless. Emetoid, ditto. Codeine was of some benefit when the cough was very harsh. Later I used sanguinarine nitrate associated with codeine and emetoid, with pretty good results. Vaporized preparations of creolin also were of benefit.

Sore-throat: Baptisoid was almost specific for this, usually giving relief after a few doses. Gargles and mouth-washes were not effective, so far as the patient was concerned.

Circulation: One of the peculiar symptoms observed: When the temperature rose above 102° F., and lots of times when it didn't, the heart was dilated. Strychnine and digitalin were useless or worse than useless. Glonoin seemed to help some. Free purgation, together with defervescent drugs, or veratrine alone, seemed to do the most good.

Nosebleed: This was a very frequent symptom. It seemed, on the whole, to be beneficial to the patient; in fact, so much so, that I bled one pneumonia-patient as much as I dared; however, without benefit. If the nosebleed became too troublesome or too severe, I used an adrenalin-spray, with excellent results.

Bowels: Epsom salt, calomel, Hinkle's pills, all were effective.

External: Flannel jacket, camphorated oil, kerosene and lard, mustard plasters.

General treatment: Antiseptics, mouth- and throat-washes, intestinal antiseptics. For intestinal antiseptics, I used the sulphocarbolates and copper arsenite and found both of them useful.

To raise resistance: I found echinacea valuable. I tried Mulford's vaccine, but, could not see that I got much benefit from

it. I thought fresh air valuable, until I got a group of cases in which I could not secure ventilation and in which the conditions were extremely unsanitary, yet, they did just as well as did the rest. So, I then decided that people should be kept in the surroundings to which they were used.

Diet: I don't know. I tried various diets, without material change in the results. Of course, while the fever was on, a light diet should have been proper; however, not everyone followed that, by any means. If the bowels were kept free, I could not see that diet mattered much.

As experience was being gained, the necessity for a very careful and thorough examination of each individual case at each visit became apparent.

One of the first symptoms of dangerous infection I found to be soreness of the larynx, trachea, and adjacent tissues. Baptisoid almost invariably relieved this in a few hours.

Beginning lung complications could almost always be detected a day or two before they showed systemic effects, and, during that time, was the opportunity to treat them successfully. A careful examination of the lungs would reveal areas of congestion. I have not tabulated these findings as pneumonia; still, I want to insist that attention to this condition cut down the incidence of pneumonia to almost nothing whenever time would allow me to attend to them as I wished.

My treatment was, to grease the skin with any available animal-fat, apply a mustard plaster over the spot where it was needed till the skin was red, then follow with applications of dry heat for an hour, then grease the chest with camphorated oil or kerosene and lard, put on a flannel jacket and let them rest for two hours. Then I repeated the whole procedure.

It requires repeated examinations to find the spots that need this local treatment. The scattered multitude of the patients made it difficult to see them often enough to give good service. As in most other diseases, close attention to the individual case goes very far toward eliminating the dangerous features.

In my cases of pregnant women, these were all given viburnoid, gr. 1-3 to 1-2 every two hours, in addition to any other indicated treatment. The temperature in all of them dropped to normal within two days after beginning treatment. The after-course was uneventful. None died. None miscarried, even though they were already flowing when the treatment was begun. In none pneumonia supervened. However, *eight of the twelve* have since given birth to dead babies.

Some interesting points have come under my observation. Sequels in my cases were few. There occurred no empyema; no chronic lung affections, so far as I know. The tuberculous victims have all come through finely and are better than before. Chronic appendix-cases have usually been made worse. Practically in all cases in which the temperature rose above 102° the heart was dilated. In almost all of the worst cases, the patients were between the ages of 14 and 30, and in people that were sound. The milder the attack, the more lingering the after-effects.

E. I. Raymond.

Wellington, Colo.

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[This is an interesting report of excellent work done. It is evident that our correspondent employed "brains" in generous doses with the remedies administered to his patients; and this, after all, is an important, indeed, the most important, factor. The difficulty of giving to the patients all the service that they required, undoubtedly contributed to the severity of the disease. This factor was active everywhere, but, has not been stressed sufficiently.

As for the administration of biologic remedies, the results of the various bacterins advocated for use in influenza and influenza-pneumonia were decidedly contradictory. The present writer never could convince himself that these remedies were of great advantage when used *curatively*. On the other hand, he is convinced that, *for prophylaxis*, bacterins have proved of decided value.

The main point in the treatment, in our opinion, is, to place the organism in a condition of greatest resistance early in the disease. Fortunately, the public has acquired a wholesome fear of "flu" and, usually, patients will consult a physician early. Then is the time to use antiseptics by spray and atomizer (especially, chlorazene solution and dichloramine-T in chlorcosane) in order to overcome, if possible, the infection of the mucous membranes in the nasal passages and the pharynx. As

an internal antiseptic, chlorazene in 5-grain doses, in solution, seems to be coming into great favor. We have cognizance of some really encouraging results.

To raise the general resistance, we emphatically admit the great value of echinacea as stated by Doctor Raymond. However, we are convinced that hypodermic injections of nuclein solution will have an effect at least equal to that of echinacea.

As for the fever, it must be remembered that a rising temperature is one of the systemic means of defense. Therefore, it is a mistake to depress it to normal; indeed, such a procedure often is followed by subnormal temperature, and by serious results. The management of the fever temperature should extend only to keeping it within safe bounds. In an infectious disease like influenza, a fever temperature of 101° F., can not be said to be dangerous, and if the physician succeeds in preventing higher temperature rises, he will have done much to aid his patient in overcoming the infection.

As for a "specific" treatment—in view of the complicated and, indeed, but imperfectly understood etiology of the disease, it is not possible to work out any method of treatment that could be called specific. Patients must be treated on the basis of measures—hygienic and systemic—that are known to be successful in the management of infectious affections. Then, the symptoms must be met as they arise.—Ed.]

HE SUBSCRIBED FOR THREE YEARS

Since our boys "cleaned up" the kaiser,
And "cleaned out" his old pig stye,
We'll "keep clean," you bet your eye, Sir,
From the autocratic sore.
For the alkaloidal way, Sir,
Let me confidently say, Sir,
Is the doctrine for today, Sir,
And for ever, ever more.
Munday, Texas.

G. A. Trott.

PROPRIETARY MEDICINES, AND EFFICIENCY IN PRACTICE

With the fierce onslaught upon proprietary medicines, made by some medical journals and not a few medical practitioners, I am not in sympathy in thought nor in deed. There are some proprietary medicines that are very useful and which may be prescribed with advantage to the patient. This fact one finds out after trial, and the willingness to try frequently is based upon two things: First, the knowledge of the constituents of the medicines and, second, faith, in the character of the individual or the firm that advertises them. On the other hand, as we well know, there are countless proprietary medicines that often are useless or injurious, and as to which we can not rely upon the statements made about them nor can be sure of their composition. Much harm may, and does, result from taking these.

However, from the use of any proprietary medicine, even the best, an evil results; for, it leads directly to much self-medication, which usually is harmful to the patient. In this matter, it is up to the personal knowledge and conscience of the practitioner to prescribe any given proprietary medicine or not. Laws, even the most ethical, can not control his actions. In this matter, his own will controls.

One hears it said that the physician should be able to formulate prescriptions that are quite equal to those already prepared for him. But, this is not true, in many instances. For the busy practitioner

Doctor Robinson's Country Home.

to carry in his brain the precise formulas of things he wishes to prescribe, often is difficult and wearisome. Furthermore, the formula that he adopts may make an unpalatable preparation, so that the patient objects to taking it. Thus, real efficiency is neutralized and confidence in the doctor lessened.

I do not wish anyone to believe for a moment that I am not utterly opposed to quackery. I am! But, at the same time, I uphold the right of everyone to think and act squarely and with that rarest of gifts

—good common sense. Of course, the efficiency of any medicine is greatly augmented by the personal attitude of the practitioner. If he is essentially a skeptic or if he attaches too great importance to accurate diagnosis or laboratory-research, the drug or the combination will fail to produce the wished-for effects. This fact is known and really not mysterious.

Good physiology would teach us that proper mental influences are largely valuable. They are, at times, singularly curative. I have had this made evident to me on many occasions. I believe that, through it, even changes in tissues may, possibly, result; I am sure that functional consequences of great value resulting directly therefrom are not uncommon. They can be observed, if keenly and carefully looked for.

We are far too much the followers of our teachers and do not think and do as we, ourselves, determine according to our own conviction and experience. Of course, we should, here, discriminate closely between the belief and affirmation of one that has had but limited opportunity to see and know and another whose occasions of this kind have been extensive and considerable.

I am confident that, in writing the foregoing, if it be well considered, I am expressing the inward thoughts of very many old and experienced practitioners. I could readily illustrate what I have said in favor of certain proprietary medicines, were I not satisfied that such testimony would be taken advantage of for supporting preparations that really do great harm and should be absolutely suppressed.

This brief article has been inspired by two valuable editorials that appeared in the July issue of The American Journal of Clinical Medicine. They bore the titles, respectively, "Anent Medical Business Efficiency" and "The Problem of the Medical Quack." I agree thoroughly, with the spirit and purpose of both these editorials, which deserve to be widely read. I only wish, in a brief and convincing way, to touch upon the other side.

This other side, put in a few words, is, first, and emphatically, that, if I were not free at present to prescribe certain proprietary medicines, I should be greatly handicapped in doing good to the patients consulting me. Also, I "deny," with the editor, "that medical practice can, in the long run, be conducted with a sole eye to efficiency and with everything human excluded." First, and above all, there must be, in practice, a vast well of human love and sympathy, without fear that it ever will be drained dry!

Beverley Robinson.

New York City.

"SHERLOCK HOLMES GETS BUSY"

A chemist of our acquaintance states that the chemistry of Captain Barry, in the interesting story published last month, is faulty. He says that, on adding caustic soda to the chlorinated water, sodium chloride and sodium hypochlorite would form and sodium hypochlorite is very strongly germicidal. Consequently, the typhoid germs would be killed, and an epidemic would not result. If the man had used sodium thiosulphate, that would have converted the chlorine into sodium chloride and the water would then have been non-germicidal. Hence, the typhoid-bacillus cultures placed into the drinking water would have contaminated it, with serious consequences to those drinking of it.

ARBUTIN FOR URINE-RETENTION

I had some arbutin granules,, gr. 1-6, lying in my desk for five years. In November, last, a pneumonia patient, Mr. S., 46 years old, developed urinary retention and had to be catheterized three times, when I happened to think of the arbutin granules. I gave one every hour until effect, and in twelve hours, there was *some* effect, in quantity and frequency of urination. Four granules a day were used for several days and no more use of catheter was made.

E. P. S. Miller.

Chicago, Ill.

[This is fine, not only for the therapeutic effect of arbutin, but, also, for the keeping qualities of the granules.—Ed.]

LETTERS FROM FRANCE—XIV

History shows that one of the unvarying concomitants of all great wars has been a rapid and tremendous increase in secret diseases to which soldiers on leave are exposed by the congregation of lewd women in all of the great centers. By rea-

son of the call to arms of all the able-bodied men, policemen as well as others, the regulation and control of the social evil is relaxed and soon assumes proportions hard to suppress or control. Our military leaders were well aware of the existing conditions in France and, so, adopted extraordinary precautions to protect our troops.

Nothing done by America in the great war has stupefied or puzzled the French more than the enormous expenditures on the numerous leave-areas created behind the American Army; the numberless troups of actors, singers, performers; the cinemas, bands, orchestras, baseball, football games, clubs, and dance-halls; reading-rooms, writing-rooms, to say nothing of the eating-places, canteens, supply-depots stocked with candies and many luxuries unknown to the French soldier as well as to the civilian up to two years prior to the arrival in France of the American Army. It seemed that this great new army had come to France on a holiday, bent upon amusement rather than a vital struggle of life and death and the saving of a great cause, for the safety and benefit of future generations; but, gradually there filtered through the public mind an appreciation, that, behind all of this apparent careless and expensive frivolity, lay a great purpose for moral and physical good, directed to the one end of occupying the time and attention of the soldier during his leisure hours and of creating stamina and a moral support for the fighting force.

All France is fully alive to the unprecedented increase in the social evil since the outbreak of the present war and, as the knowledge has spread that the American Auxiliary Organizations were enlisting the services of the leading Americans to come to France and were expending hundreds of millions in the effort and with the object of furnishing constantly such variety of interesting and attractive forms of occupation and amusement as to keep our men away from less desirable places and less dangerous companions, there sprang into life a growing desire on the part of our French friends to become a part of these forces for good and help in every way to further the farreaching influences thrown out and around the American soldier for his aid and protection; and this has resulted in a movement, throughout France, as revolutionary as any social movement ever born within its borders: Nothing less, than the breaking down of the barrier that from time immemorial has kept French family life as safe from invasion as any Turkish harem.

Inspired with the idea of facilitating the acquaintance and intercourse between Americans and the French, a group of French people founded "French Homes," an association designed to extend the hospitality of French families to the men of the American Expeditionary Forces. The appeal of this society, through the press, for rooms where Americans might find comfortable quarters and family-life at reasonable rates, met with instant response.

Americans that have lived in France and know the French are aware that no homes are more shut to the stranger or foreigner than are those of France. It is almost impossible for an outsider to hope to enter these sacred precincts, and this is one of the prime factors that has prevented foreigners from forming a just estimate of the real life of the French home.

This barrier was broken down by a few lines in the leading papers, an appeal to French family-circles for the homeless boys whom America sent to fight for France, and old aristocratic mansions opened their gates wide to America's sons. Some of the noblest families bade Americans welcome to their mansions, where family-life would await them.

"It is little enough we can do to make some return for all they have done for us," wrote a proud old duke, "but, what little we can do, let the Americans know, we are proud and happy to do."

"I have not been used to receive perfect strangers," writes a countess, "but, all that my house can offer will be gladly given to help some American to feel that he has a home in France, and my daughters speak English."

"I have two rooms," writes an old father. "They were my two sons' rooms. Both have been killed on the battlefield. I cannot do better than to offer what was theirs to two American boys, brothers in arms of my two heroes."

And, in all ranks of society, from the highest to the humblest, the same touching trait is to be found.

Here is a poor woman, who lives by selling vegetables; she opens up her hum-

ble home to an American boy; a writer offers to share his "den" with an Ally; an artist, his studio; here a clerk in a shop says that "his children may help to make up for a humble lodging in making some lad feel at home over here." And, thus, offers flowed in from everywhere.

I but recently returned from my furlough, spent in Nice, on the Mediterranean, which has been created one of the greatest of the leave-areas, and there I found an organization of marvelous variety and efficiency.

Out in the ocean, bordering the Promenade des Anglais, stands the Jettée Promenade, a great palace built for the amusement of the people of Nice. This building has been taken over for the American Army. Two bands play daily in the two great halls forming the two wings and separated by the width of the main building, which contains a theatre, concert-hall, dance-hall, where an orchestra plays for dancing every afternoon and evening, and a great cafe with numerous tables where refreshments are served at cost, while a canteen supply-store sells all sorts of things including tobacco in every form, candies, and sweets. This building is reserved exclusively for the soldiers. Officers are not admitted.

On the Place Massina, there is a beautiful theater for officers offering a great variety of free nightly performances. Also the first floor of a beautiful building, consisting of a dozen rooms, fitted as a club, with an enormous hall for dancing that will accommodate 200 couples, where an orchestra plays from 3 to 6 and from 8 to midnight. This club is constantly crowded, and here there is demonstrated a working-agreement between the Army authorities and local residents that is productive of most excellent results.

No lady is admitted, except by a personal card, to secure which, she must furnish her name, address, and two city references. This application is turned over to the local Committee of French Homes, who investigate and pass upon the qualification of the applicant. By this means, all undesirable "ladies" are excluded and, as a result, the family of the prefect, the mayor of the city, and all the leading families frequent the club and join in helping to entertain visiting officers. As a result of these casual acquaintances, many of these officers are invited to the leading homes of Nice.

Now many Americans will learn to know French women as they never knew them: not, the painted dolls they meet in places of amusements, but, the proud and wonderful women that helped to keep up the courage of absent husbands and sons, whose delicate hands knew how to tend dreadful wounds, whose fragile strength never grew weary of long days beside the sick and dying in the hospitals. They will learn to know girls as pure and sweet as their own, and, thanks to this social revolution, the timeworn prejudice about "frivolous French women," which the American traveler has related upon his return from a trip abroad, may be corrected.

B. Sherwood-Dunn

Paris, France.

"SUCCESSFUL COLLECTING"

In the November, 1910, number of Clinical Medicine, there appeared an article contributed by the late Dr. William J. Watson, entitled "System for the General Practitioner." In the closing paragraph of this article, on page 1205, the author referred to two little books, one titled "How to write Letters That Win," and the other, "Successful Collecting."

Some correspondents in India are anxious to secure both these booklets. It has been possible to locate the first-mentioned one, but, no one consulted could refer us to the publishers of the book on "Successful Collecting."

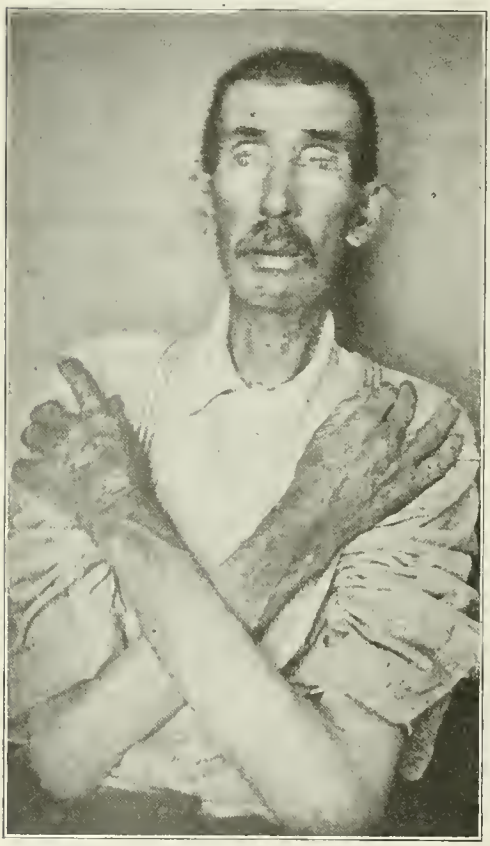
If any of the readers of Clinical Medicine can help us out in this respect, they will do us a great service.

PELLAGRA, AND ITS TREATMENT

Pellagra, or erythema endemicum, as it is also known, is a disease, which, during the past ten years, has been gaining ground in our country, previous to which time it prevailed, principally, in certain European countries. I encountered the first case of pellagra in my practice in the year 1907, but, since then, have had to treat a number of others.

In every instance at the time that the victims presented themselves for treatment, the skin manifestations were the first symptom to cause them to seek medical attention. At the close of winter and

as the spring began to open, an intense redness would be noticed on the back of the hands, in some cases deepening to a deep-bronze or purple, accompanied by a tingling, burning sensation and, as ex-



pressed by some, a feeling as if needles were being pricked into the back of the hand. To this, there were added faulty digestion and nutrition, a feeling of lassitude, headache, great fatigue, vertigo, and pain in the epigastrium followed by diarrhea. A feeling of weakness and indisposition would continue throughout the summer and autumn until cold weather set in when all conditions would begin to improve and quite disappear, until about the middle of March, when they would reappear in a more aggravated form.

Observation has taught me that, in the majority of cases, the cutaneous manifestations are the last symptoms to appear. The skin-disorder seems to develop in three stages. First, your attention is directed to a congested condition of the skin, giving it a thick, spongy feeling; second, pigmentation and scaliness appear; third, we observe a tendency toward atrophic thinning. To be more specific, the first appearance is a dark-red, discoloration, this, later, changing to a dark-brown or bronze. It makes its appearance upon the uncovered portions of the body (hands, wrists, and up to the elbow, if short sleeves are worn; neck and face into the margin of the hair). The skin of the face at first is thin, but, gradually thickens. Many patients complain of an intense itch-

ing and, later, of impairment or loss of sensation.

In a few cases there is an inflammation which seems to affect the superficial layers of the skin and, in others, to extend to the deeper strata. The epidermis desquamates, the amount greatly varying in different patients. The skin may, at some time, have a fissured appearance, some-

what shriveled and senile. Sometimes vesicles, bullæ, and petechiæ may be associated with the other manifestations.

All of the foregoing features become more pronounced with each successive attack, and all these manifestations may be repeated year after year, while each succeeding year may add entirely new symptoms, until, at last, there becomes noticeable decided muscular weakness ac-

companied by mental deficiency and a pronounced despondency or melancholia.

In the advanced stage, when the skin presents the dark-purplish red or brown appearance, there may be present extensive exfoliation, while the fingers assume a drawn, claw-like flexed position, and seem immobile. The patient gradually becomes debilitated and very greatly emaciated, brought about by the faulty digestion and the resulting diarrhea, in part, however, probably owing to the involvement of the cerebrospinal system.

After the patient has had several annual attacks, the pulse becomes weak and thready; there is continual muscular weakness and pain in the head and in the spinal column. Sometimes a very pronounced stupor is noted, which not infrequently eventuates in insanity, death ensuing sooner or later.

I have found this disease to occur most frequently among the poor classes, although the wealthy are, by no means, immune against its ravages. It has been found in nearly all European countries, Italy and Roumania leading. Pellagra was at first thought to be brought about by the incessant use of corn-meal bread, but, later and more thorough investigations have proven this idea untenable. This, also, has been my own experience. Some of my patients suffering from the disease have never been users of corn-bread.

I am inclined to the idea that insanitary conditions and surroundings have much to do with its etiology. Still, I must admit that among some of my patients the sanitary conditions and surroundings were excellent, they being among the well-to-do and even wealthy. In all of my cases, without exception, I have found the nutrition impaired. However, after all, I must confess that still I am at sea as to the real cause of this insidious scourge.

The deranged condition of the central sympathetic nervous system I believe to be very largely caused by overwhelming amount of toxins produced in the intestines and thrown into the general circulation. The cutaneous changes I attribute to the mild congestion and irritation and to the atrophy of the rete.

In mild attacks, a favorable *prognosis* may be safely given provided a carefully selected diet and sanitary surroundings are being ensured. Severe cases, as a rule, prove fatal, with a duration of from three to seven years; others may be prolonged to ten or fifteen years.

As for treatment, I do not claim to have any specific. The main, and chief, condition is, to provide the patient with the proper food and good hygienic surroundings, together with efforts to improve the general health.

Medicinally, I have accomplished the best results with arsenic, iron and sodium. The best results will be attained by admin-

istering these agents intramuscularly, using them in the form of iron arsenate and sodium cacodylate, as put up commercially in ampules. I administer the two alternately, giving the iron arsenate one day and the sodium cacodylate the next.

Let me describe two cases from practice.

Case 1. Woman, age 35, married, no children. Father dead, at 65, of asthma; mother living, age 60, health good; four brothers living, in good health; three sisters living, health good; no brothers or sisters dead. She had all the diseases of childhood; health was good up to the age of 30, when the present disease made its appearance. Had lived in Idaho for five years, was living there when the skin manifestations first appeared on hands and face, and up to the time of my examination had had three returns (each spring).

This particular case differed from my others, in that it was worse upon the face and neck than upon the hands and forearms. Her face was horrible to look upon, with no resemblance of her former self, to the extent that she was not recognizable to friends, who had been intimate with her. She stated that she felt in perfect health during the winter months, but, about the middle of March the trouble would make its appearance. I pronounced hers a typical mild case of pellagra; and put her upon the iron, arsenic, and sodium course. She improved from the first and, by the following December, her trouble had entirely disappeared. However, before spring, she left the community and I lost sight of her, not knowing as to the permanency of my treatment.

Case 2. This patient who now is under treatment, is, and has been, the most interesting, for many reasons, of any that I have ever examined. With this case, I submit several photographs, presenting back and front views. They will show more than I can hope to express in words.

Man, age 57; height, 5 feet 11 inches; weight, 88 pounds. Father died, at 62, of pneumonia; mother living, age 75, in good health; two brothers living, aged 40 and 45, respectively; one sister living, aged 42, health good. One brother died of pneumonia; one sister died of cancer, at 45; one sister died in childbirth.

He has had all of the diseases of childhood, has had pneumonia, typhoid and scarlet-fevers. With those exceptions, his health has been good up to eighteen months ago, when he was taken to jail, where he was confined for a year and a half. From this, he dates the beginning of his present disease. When taken to jail, he weighed 165 pounds. I first saw him February 22 last, when his weight was 88 pounds. He presented all of the skin manifestations of a typical case of pellagra, accompanied by marked diarrhea of a dysenteric character. His feet were greatly swollen, as shown by the picture. His mental condition was very bad. There were continual muttering delirium, marked despondency, weakness and emaciation, he being barely able to stand upon his feet. Taking all symptoms into consideration, the prognosis was, and could be, no other than grave. I did not expect him to live more than three or four weeks.

His hygienic surroundings were carefully looked after, his diet was prescribed, and the treatment with the iron, arsenic, and sodium was begun, in form described above.

He was weighed one month after I instituted the treatment, and was found to have gained 12 pounds. He was weighed again upon April 3, when he had gained a total of 18 pounds since February 4. His mind has very greatly improved and, at the present time, it looks as if we were going to bring about a complete cure from what, at first, was considered worse than hopeless.

J. C. McCreary.

Eddyville, Ky.

RED CROSS NOTES

The clinic was the medium through which the American Red Cross was enabled to raise the health rate of the peoples of the United States and of Europe and to promulgate educational propaganda.

In America, the Red Cross, in cooperation with the Federal Public Health Service, has established clinics in towns near thirty-two cantonments, army-posts and naval bases. For the six months ending December 31, 1918, an appropriation of $945,845 was made for this sanitary service.

The special work of these health-units was, to combat communicable diseases among civilians, to the end that the welfare of the soldiers might not be threatened. Thousands of dollars were spent on bacterins and serums. In one clinic, at

American Red Cross Balkan Survey.
A home in Salonika in ruins. The little child was just recovering from double pneumonia, when this picture was taken. Three families live in this house. December 1918.

Fort Worth, with but three doctors and nurses in attendance, 3,000 persons were vaccinated against typhoid fever in one day—a stupendous achievement! Clinics for maternity-cases and child-welfare were established. Hundreds of persons, many of whom could not otherwise have afforded it, were thus enabled to secure medical advice, gratis.

The majority of such persons were wofully ignorant of the proper care of themselves and of their children, and, to such persons, the nurses, in a kindly, helpful, impersonal way, taught the simple and sanitary methods of hygiene, food preparation, and so on. Not the prescribing of medicines, so much as the giving of medical advice, together with the distribution of educational propaganda and the securing of more sanitary living-conditions, was the principal work of these clinics in the United States. In Europe, the great needs of the population forced them a step forward.

When the Red Cross Commission arrived in Russia, in July, 1917, the then Premier Kerensky was in power. He gave them a cordial welcome, and activities were immediately started up. Infant-mortality was high and to combat this evil a system of clinics was opened. These did most efficient work. During the month of October alone, the contents of 50,000 cases of condensed milk were distributed through the clinics; for, undernourishment was found to be the principal cause of ill-health and disease. These clinics were in operation in all the larger Russian towns until the tumultuous arrival of the Red Guard forced the Red Cross from the country.

The especial sphere of activity in which the French clinics operated was among the tuberculous refugees and the children. At Évian, through which the repatriated people passed in droves, 13,708 children were examined, in two months, at the Red Cross clinic. Under Doctor Maynard Ladd of the Red Cross, clinics were opened in the factories, town-halls, and schools of France and, in these, 1,765 children were treated during a single month. In the schools in Nesle, 500 children were reached month-

ly, and the doctors and nurses extended their activities to the surrounding towns, clinics being held twice weekly in seven nearby villages.

The American Hostels for Refugees constituted a series of clinics operated in Paris and its suburbs by Doctor Cabot, of the Red Cross. The first clinic, during one month, treated 302 persons.

At the request of the Queen, clinics were established in Belgium and, through these, 600,000 refugees were supplied with their medical needs. In Italy, a like service was performed among the 400,000 families dependent upon charity.

Systems of clinics were established in Serbia, Roumania, Greece, Palestine, and Siberia, to combat the diseases that follow war. In all these countries, the principal diseases treated in the clinics were tuberculosis and typhus, both of which had gained a strong hold on the impoverished peoples. Typhus has ceased to be epidemic, through the efforts of the clinics.

Red Cross representatives found the teeth of the people of all countries to be in a bad condition. On the entire Serbian front there was but one dentist. Therefore, American dentists were brought over and provided with "motor clinics." In these, they traveled about Serbia, giving aid to soldiers and civilians. Dental clinics also were operated in connection with the French public schools.

Literature was prepared, by the Educational Committee, in the languages of the several nationalities and with the utmost care, so that the sensibilities of the members of the native medical profession and of the laity should not be offended. This literature was kept in all the clinics and distributed among the patients, who, in turn, disseminated among their friends, this literature and information.

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A Red Cross news-item from Macedonia tells how, with a razor, a spool of cotton thread, and a small quantity of ether and chloroform, Miss Marie P. Kouroyen, an American Red Cross nurse, performed a life-or-death operation, as a result of which she has come to be known by the homeless and starving Greek refugees in that region, as "the American angel."

Born of Greek parents, Miss Kouroyen is a graduate nurse of the Massachusetts General Hospital, at Boston. Because of her knowledge of Greek, the American Red Cross sent her to Macedonia, where typhus, smallpox, and cholera tread on each other's heels and where the refugees bury their dead beneath the dirt floors of their shell-shattered shacks, in order that the bread-cards of the dead member of their family shall not be taken away.

A Greek soldier, one of whose legs had been crushed, was brought to the boxcar, standing on a railroad-siding, in which Miss Kouroyen was living. Something had to be done for the man at once, and Miss Kouroyen spent no time in talking.

Borrowing a razor from Lieut. Abner J. Cobb, of Denver, Colorado, an American Red Cross fieldworker who just was shaving by candle-light in the boxcar, Miss Kouroyen anesthetized her patient with her small supply of ether and chloroform and performed an amputation, using cotton thread to tie the arteries and veins.

Despite the prophecy of a local doctor, that the aged patient would not live through the night, Miss Kouroyen some time later received a visit from this patient. He had an American artificial limb made for him in the American Red Cross artificial-leg factory for Greek war-cripples in Athens.

DO FACE-MASKS PROTECT?

There was a little germ,
Such a sly, little worm,
A-sailing all around by the million;
And then a little mask
Made a fine place to bask,
And he settled on the thing by the billion.

There was a little man
Who was scared by the ban,
And he wore this little mask like a muzzle.
But, the germ got in its work,
Like a busy little Turk;
And the little man was worried o'er the puzzle.

But, when he figured out
That the way to keep 'em out,
Was, not, to trap 'em on his upper story;
It was just a bit too late;
For, the germ had took the bait.
And the little man was on his way to Glory.

H. E. Negley.

Indianapolis, Ind.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

The Actual and the Ideal

[*Continued from October issue, page 737.*]

GREAT books can be understood only by great men; for, as a man can not write, so neither can he read what he has not cultivated within himself. And herein lies the safety and eternal life of the true in literature as opposed to the false; for, it appeals to the great thoughts of the mind; and the great thoughts were never yet wholly smothered even in the most selfish mind, while the false thoughts always are dying or changing form.

But, when we hear that a given writer is eternal, we can not accept that dictum literally; we take it, rather, as we do the myths of the ancients, looking through the childish letter to the quickening spirit within—as, although Lynceus was said to be able to see into the interior of the earth, we know that that meant that he had an intimate knowledge of nature, as our scientists have it today. Not so many years ago, before the times of Max Mueller, Homer was regarded as the earliest poet of antiquity. Now we hear, aside from the controversy over the true authorship of the Iliad and the Odyssey, not only that Linus, Orpheus, Musæus preceded Homer in his own country, but, that he was the imitator of Valmiki, the epic poet of India. Whom, then, did Valmiki imitate and where are his works? And again, Valmiki's predecessors, who were they and where are their works? Where are the works, what are the names of the prototypes of the writers of the Pentateuch, or of Sanchoniathon, or Jerombaal, or Manu, or Kapila, or the Vedic Rishis? The names of these ancient writers are with their bodies, merged in the common dust of earth. However, their thoughts—those true thoughts for which their pens were the channels through which they flowed to men from the Godhead—these live now with as vital a life as ever but, are being ascribed by the world to their followers—to Plato, to Aristotle, to Epictetus, to Carlyle, to Emerson, to Spinoza.

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It is the thought that lives, if it is worthy. In eternity, names have no place. The thoughts that sparkle with splendid fire in Shakespere have sparkled, and will continue to sparkle, through all time, when the name of Shakespere shall be forgotten. For, although they were, indeed, Shakespere's thoughts, they are also the thoughts of broad humanity, and, like all beauties of nature, belong to whomever has the wisdom to see and enjoy them, and will, in turn, be attributed to him if he has the faculty of expressing in new phrases what he sees. "He is not debtor to Plato, but, to the idea to which Plato also was debtor."

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Neither will a wise man expect to find any book all truth. And herein lies the cause of its death, as a book; that which it contains of universal truth alone being eternal. And the minds of even the greatest men and writers are various, are built in with moods, and none of them is quite devoid of fantasy. In the books of Montaigne—the man of the world *par excellence*—we find the same truths that lighten the somber pages of Augustine, the saint. Yet, in the vagaries arising from the individual viewpoints of these authors, how different are they! The truths which are common to both will live, be quoted, loved, passed onward from generation to generation, the language gradually changing to meet the comprehension of the different ages, through all eternity; but, their books will, some time, be no more known, because of their imperfections, even were these so slight as to escape the eye of all but the very seer.

The same reason that prevents one book from being all truth prevents another from being all falsehood. "The foolishest book is like a leaky boat floating on a sea of wisdom—some of the wisdom will get in,

anyhow," says Doctor Holmes. Indeed, it must be plain that no class of books is wholly in vain; for, without the lower and intermediate steps, ascent to the higher and highest would be impossible for some persons perhaps for the majority. Nobody would expect a boy of ten years or a man who had neglected to cultivate the unselfish, finer side of his nature to be able to enter at once into the beauties of that class of literature of which Emerson stands as the head and front and quickening symbol in this age. Therefore, without the lesser authors, there would be no Emersons, no Carlyles, no Fichtes, no Goethes for the world.

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It is true that one may cultivate the errors of his authors, whoever these authors may be, instead of their truths; but, that is each reader's own affair, and, if he leans to falsehood rather than to truth, he still would find means to cultivate it if no writer ever had existed. Embryo men like their truths adulterated and will not accept them unless they are adulterated; they can not recognize the bare truth as palatable mental food. It alarms their selfishness. It seems always about to cost them something. With them, it is as Bacon says, "a mixture of a lie doth ever add pleasure." But, the more they absorb of truth—little of which they would get but for the mixture of falsehood which attracts them toward it—the less they will have it adulterated, until in due season they must have Emersons, Carlyles, Fichtes, Goethes, and nothing less than these will do for them. The time comes, too, when these minds will be willing to leave for others the same steps by which they themselves have mounted, as the boy at school mounts from the English alphabet to Greek and Sanscrit, and will look on in love and interest as the lowly stars in the east climb spirally up their heaven.

The Divine Idea—as Fichte called it—that rules the world, and which itself is immutable, requires in every age new interpreters, writers, and speakers capable of expressing this divine idea in terms that will be understood in that particular age. Moreover, since the men of the same period not all have the same understanding, being unable to comprehend the same writers, not only must every age have its interpreter, but, every class of mind in that age must have its interpreter, too. The man who considers Emerson dull or visionary or impractical will be attracted to those writers who are on his own level and will read them until, having assimilated their points of view, he is prepared to ascend a little higher. And so on.

Therefore, the popular writers of any age stand as types of the tastes and intellectual heights of that age. They write nothing new, they but put old thoughts into new dresses, to meet the fashion of their time. They are born of the demand of the contemporaneous mind of man, and, when the mind of man changes, as it inevitably will, the sun of their popularity sets. The voice of the people is the voice of God, so far as the people themselves are concerned; and their popular writers, no less than their popular preachers, statesmen, and actors, are the living utterances of that voice to them. But, intermingled with these, even in the mind of the lowest of them—as ether in the air and all denser bodies—is universal truth, sparkling with living beauty, here a pinpoint spark, there a starry effulgence, unconquerable, immovable, eternal. No writer can be so poor that he can not at times do it reverence; and the proof that his work is necessary for somebody's good, no matter how puerile it may seem to you and me, is, that it exists.

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If all men would be willing to see the naked truth when it is presented to them, there never would have been need of a book since Valmiki; indeed, there never would have been need of any book at all, for, nature itself, which is everywhere and wide open to its true lovers, contains all truth, is, in very fact, all truth itself for those who have the eyes. However, as there are men of variously cultivated love, so there must be writers for them all—as there must be swamps for snakes, bowers for birds, houses for men, palaces for kings, worlds for Christs. For, the people and their writers are one, the former the cause, the latter the effect; the people are the soil, the writers its production; the people are the mind of man, their writers are that mind's concrete manifestation, result, symbol, showing to all the seeing part of humanity the degree of cultivation which the mind of the people has attained. And each individual reader has, in this

truth, an infallible guide to a knowledge of his own grade of culture, for, the class of books which he reads with pleasure and profit indicates, by its height in the scale, just where he stands.

However, the lower in the scale a man finds himself by this rule, the less will he believe its truth; for, as Max Mueller says: "The older I grow, the more I feel convinced that nothing vexes people so much and hardens them in their dogged resistance to reforms as will undeniable facts and unanswerable arguments." And, had the German-English sage been the first to learn this psychological truth, we should not have had that doctrine of nonresistance which was promulgated nineteen hundred years ago in Palestine and Rome, and earlier, still, by Socrates and Plato in Greece, and, before that, by Xenophanes, Pythagoras, and Buddha, and nobody cares to say how long before that by Manu, Kapila, and the prototypes of the Vedic Rishis.

Perhaps the real difficulty, however, lies, not so much in finding out the uselessness of argument in the cause of truth (for, there was never yet a wise man to whom that fact has not early come home) as in remembering and using the knowledge so as to preclude argument. In the heat of enthusiasm or indignation, men cry, "Down with it! How? Never mind how! Down with it!" Reform is all, method nothing. Then it is that the gods laugh and wonder to see blind mortals attacking Proteus with an ax and kicking against Pluto's solid masonry with naked feet. And still the voice of Pythagoras comes persistently ringing down the ages, laden with mighty import to his mental offspring: "Do not stir the fire with a sword."

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And, ah! the subtlety of these "letters that bring no cure" to state or statesmen. Emerson preaches it in England, and is smiled at for his pains. Why? Because he *preaches* it. Nobody could very well object to his practicing it; but, when the thought takes shape in words, it bears its defeat with it, for, then it becomes self-contradictory by its very nature. Twenty-three hundred years ago, Plato felt constrained to say: "Of all those whose arguments are left to the present day, no one has ever condemned injustice or praised justice, otherwise than as respects the repute, honors, and emoluments arising therefrom." And not so very long ago, after all these ages of culture, progress, and love, Landor did not hesitate to insist broadly that men urge reform and goodness in others, so that they themselves might not suffer by them. If this is the effect that preaching and argument has upon the minds of the great, what can we expect of the multitude, which, at last, always takes its mental bias from its leaders!

It was, therefore, with very good reason that the ancients assigned logic to the muse Euterpe, she who plays on two pipes at once, and gave it the lowest place among the arts, while mathematics was awarded the chief honors even among the sciences. For, mathematics is busied solely with direct results: its only concern is, to arrive at its goal by the shortest route, its office is, to build; and, when its work is done, there is the question solved beyond all doubt, beyond appeal, enduring as time, its one modest affirmative annihilating even the possibility of contradiction. But, logic, while it is convincing and admirable to those who already are convinced or to those who wish to be convinced, is regarded by the opposition as an evidence merely of the subtlety and ability and falsity of the arguer, rather than as proof of the justice of his cause; and those among the neutrals who do not content themselves with a similar sentiment, without being in the least influenced in their beliefs, have only to meet another logician to be teetered back again.

These are reasons why Montaigne felt constrained to say, "I would rather be a good horseman than a good logician." Hegesias' motto was, "Neither to hate nor accuse, but, to instruct." Cardinal Newman puts it thus: "Deductions have no power of persuasion. The heart is commonly reached, not through reason, but, through imagination. After all, man is not a reasoning animal, he is a seeing, feeling, contemplative, acting animal." And Carlyle says of genius, what may be said of most human attributes, that it grows upon contradiction, as the vital germ pushes itself through the dull soil and lives by what strove to bury it. "The only true government of men," he says, again, "is, to show them what to do." It will not answer to tell them, merely. They will not believe until they see acts as well as hear words.

[*To be continued.*]

Among the Books

LERCH: "RATIONAL THERAPY"

Rational Therapy. By Otto Lerch, A. M., M. D. Troy, N. Y.: The Southworth Company, Publishers: 1919. Price $7.00.

The author of this book, a therapeutist of note, inaugurates a new departure in his present contribution to treatises on the treatment of disease. The physician who consults it expecting to find the customary information on what tincture or fluid-extract or other preparations of a certain drug is "good for" a certain trouble, will be disappointed: while that physician who devotes himself to its careful study will find his understanding as to the principles of treating patients, afflicted with certain diseases, enlarged and his viewpoint of therapeutic methods in general widened.

Doctor Lerch emphasizes first and foremost that *blood alone* cures and that all methods used to treat disease must serve to purify it and to bring it where it is needed. In accordance with this view, the "healing power of nature" is granted its full credit in bringing about recovery from disease, and copious information is presented how this healing power of nature is to be guided and how its possible vagaries may be controlled for the best interest of the diseased organism.

The various therapeutic measures are taken up successively, each chapter being divided in two parts; the first discussing the general principles of the particular subject, while in the second its application, in the diseases of the various systems and organs of the body, is considered.

Accordingly, separate chapters are devoted to air, including climate, light and so forth; to diet; rest, massage and exercise; hydrotherapy; electrotherapy; psychotherapy; hyperemia; vaccine and serum therapy; organotherapy; and chemotherapy, including drug treatment.

In the discussion of all these various methods and means of treatment, the author always is careful to point out how their proper utilization will serve to purify and strengthen the depraved and vitiated blood of the patient and how in this manner improvement in the condition of the patient is produced.

In speaking of the sun-bath, the author has omitted reference to the beautiful work done by Rollier, of Leysin, of which an interesting account appeared, for instance, in the special tuberculosis numbers issued by the *Interstate Medical Journal*, in 1914. In referring to Asheville, North Carolina, the author places its altitude at 1,900 feet, while it actually is 2,350 (see "Reference Handbook of the Medical Sciences," art. "Asheville.")

The article on diet may well be studied and taken to heart. The author shows the importance of environment, including living conditions of the patient, his occupation, the climate in which he lives, his powers of assimilating food. Against the prevailing amateur notions of many "dietitians," the author prefers to control improvement by weight, appearance and subjective feeling, claiming that in general practice a close figuring of calories becomes a negligible factor. The object of the dietetic treatment, he says, is to produce blood, as far as possible, free from impurities and containing in sufficient quantity the elements necessary to produce heat and energy as needed, and to replace the burnt-up body albumen and fat.

In like manner, rest and massage and exercise, all of which might be considered together, (rest being a negative form of exercise), are discussed, first, as to their general principles and rationale, then, in their application in certain diseases; and so on through the book. In the chapter on psychotherapy, we find the important declaration (not new, but, frequently neglected) that the mind presides over every function of the body and over every process of life. Consequently, it is important to influence the mind favorably.

In the chapter on vaccine and serum therapy, the problems of immunity are taken up briefly and the rationale of bio-

logic treatment is considered in this as well as in the following chapter, that on organotherapy.

The last chapter, that on chemotherapy, or drug treatment, consists, first, of a discussion of various groups of drugs, somewhat in the style of the materia medica, and this is followed by a part on chemotherapy in special diseases in which the principles of drug treatment are outlined in such a manner as to afford excellent guidance for the studious physician. An appendix containing a list of drugs and a complete index covering fifty-two printed pages complete the work.

Mechanically, the publishers started out to turn out a handsome volume, printed with clear, readable type on good paper. Unfortunately, the text contains an altogether undue number of typographical errors, some of them even being mistakes in the spelling of names (for instance, Brehm for Brehmer). In a subsequent edition, which we trust will be called for soon, these mechanical imperfections can easily be removed, and on that occasion the Reviewer suggests adherence to the style of spelling scientific terms that is in vogue in all well-edited medical journals, as well as in the dictionaries.

It may be added that numerous illustrations are provided where they are of service. Especially are the original photographs illustrating exercise and massage to be commended.

Altogether, we have enjoyed reading the book and have derived from it much useful information, while, in many points of which we had been cognizant, our memory was refreshed. We can recommend it cordially and hope that Doctor Lerch's views in many respects will find wide acceptation.

"WHITE AND MARTIN'S GENITOURINARY SURGERY"

White and Martin's Genitourinary Surgery and Venereal Diseases. By Edward Martin, A. M., M. D., Benjamin A. Thomas, A. M., M. D., and Stirling W. Moorhead, M. D. Illustrated with 422 engravings and 21 colored plates. Tenth edition. Philadelphia: The J. B. Lippincott Company. 1917. Price $7.00.

This textbook on genitourinary surgery and venereal diseases is widely known and its value fully recognized as is manifested by the fact that it has appeared in its tenth edition. In the chapter on cystoscopy, we miss reference to Luys's direct-vision cystoscope, which, to us, seems to have many advantages over the others now in vogue. However, the discussion of the various genitourinary diseases is remarkably complete, and, especially has the problem of syphilis found extensive attention, 12 chapters out of 44 being devoted to that disease alone. White and Martin's book really does not need any commendation. It will be received on its own merits, without hesitation.

HARE: "THERAPEUTICS"

A text-Book of Practical Therapeutics, With Especial Reference to the Application of Remedial Measures to Disease and Their Employment Upon A Rational Basis. By Hobart Amory Hare, M. D. Seventeenth Edition, Enlarged, Thoroughly Revised, and Largely Rewritten. Illustrated With 145 Engravings and 6 Plates. Philadelphia: Lea and Febiger. 1918. Price $4.75.

The high estimation in which Hare's "Therapeutics" is held by physicians generally, as witnessed by the fact that it has reached its seventeenth edition, is fully justified by the declaration, on the part of the author, that each new edition of a textbook can not be merely a reprint but must be a revision based upon the progress made in laboratory experiments and especially in clinical observations. Accordingly, the author has come to the conclusion that the preparation of the seventeenth edition of a book requires more care and judgment than the writing of the first if the author desires to have it represent things as they are and not as they have been. The Reviewer desires to urge those who are fortunate enough to possess or acquire this latest edition of Hare's book on Therapeutics to read the preface with great care.

Realizing that the object of this book is, to place the subject of treatment before the reader so that it may be applied at the bedside in a rational manner, Doctor Hare has been careful to test and evaluate the results of laboratory investigators with great discretion and to accept them only in so far as they were proved in actual

bedside experience. He asserts justly that bedside experience and clinical observation must afford the ultimate proof of laboratory results.

In this present edition, the results of war experiences have been included. Accordingly, the uses of Dakin's fluid (better, chlorazene) and dichloramine-T, and the treatment of burns by paraffin are discussed. The methods of prescribing a proper diet for the sick now are described more in detail than formerly, particularly in respect to children and diabetics. Those drugs that heretofore were made in Germany or under German patents and now are manufactured in this country have received the names under which they are known officially, for instance, arsphenamine for salvarsan, procaine for novocaine. It will be found, indeed, that the present edition is in considerable part new and that it contains many important changes over former editions of the same work.

LEWIS: "THE SOLDIER'S HEART."

The Soldier's Heart and the Effort Syndrome. By Thomas Lewis, M. D., F. R. C. P. Physician of the Staff of the Medical Research Committee, etc. New York. Paul B. Hoeber, 1919. Price $2.25.

Among many other phases of medical knowledge, in which the experiences gained by medical officers during the war record a distinct advancement over our prior knowledge, is to be considered the extensive study of the heart, both in health and under the influence of functional as well as in organic disturbances. The "effort-syndrome," the "irritable heart of soldiers," the "disordered action of the heart," are terms that have become familiar to physicians having to do with soldiers, either prospective (in examining drafted men) or in active service or after discharge. Much has been written on the subject, in periodical medical literature and in monographs. Yet, much still remains to be cleared up more definitely.

Dr. Thomas Lewis has to his credit several books devoted to affections of the heart, studied by him and which he has described with particular care. The "collection of war-time notes" before us, as he modestly describes his little treatise, contains much food for fruitful investigation and study; also, much useful guidance for the application of war-time lessons to civilian life. For, as the author truly says in the preface: "If we are to reap the full benefit of our experiences during this war, these experiences are to be treated on a broader basis. To endow them with permanent value, they are to be correlated with the experiences of civilian life. If it is possible, it is important that some "prognostic and therapeutic lessons that are of general application be learned."

DAVIS: "PLASTIC SURGERY"

Plastic Surgery, Its Principles and Practice. By John Staige Davis, Ph. B., M. D. With 864 Illustrations Containing 1637 Figures. Philadelphia: P. Blakiston's Sons & Co. 1919. Price $10.00.

By plastic and reconstructive surgery is understood that branch of surgery that deals with the repair of defects and malformation, whether congenital or acquired, and with the restoration of function and the improvement of appearance. Plastic surgery is one of those "modern" methods of treatment that were in use centuries ago. Indeed, the first report of the employment of the arm flap for the purpose of restoring a lost nose is contained in Benedictus' work on anatomy (1497).

Within the last decade or two, the possibility of securing cosmetically acceptable results in surgical operations came to be appreciated more widely, and "plastic" surgical work was undertaken deliberately although usually more or less incidentally. It is largely due to the efforts of the author of this book that plastic surgery is coming to be recognized more and more as a definite surgical specialty, and that more and more successful work is being accomplished in this field.

Doctor Davis' book represents the result of his personal experiences for the last ten years and also the principles and methods of plastic surgery elaborated by others.

Owing to the frightful disfigurements suffered by many soldiers during the war, plastic surgery has come to be valued far more highly than ever before and, indeed, it has become an actual necessity. The book is extremely interesting not only for the surgeon but also for the general practitioner who, undoubtedly, should know something about the subject. It is to be hoped that this branch of surgical technic will experience further attention and improvement.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Answers to Queries

Answer to QUERY 6451—"Anemia of Uncertain Origin."—Referring to Query 6451, on page 674 in the September issue of CLINICAL MEDICINE, I wish to say that I have been practicing fifteen years in South Alabama and West Florida (after ten years' experience in Illinois and Iowa) and that I am deeply interested in the case presented.

As the editor wisely suggests, "with the information supplied, it is difficult to venture a diagnosis." However, the statement regarding sugar being present in the urine seems to me to be rather out of harmony with the rest of the case. Is it a misprint? Does this paragraph belong to another case?

In my long experience in the South, I have studied many cases of anemia in adults and children. I find many causes back of weakness and blood poverty. In my opinion, P. F. L. will do well to examine the urine for albumin, as cases of chronic nephritis may happen here in children. I regard the treatment by means of dilute hydrochloric acid as excellent, but have had better results with it given after meals, rather than before.

Besides malaria, hookworm is a common cause for anemia, in Alabama. Some of the mature worms may be dislodged by a brisk calomel and podophyllin purge, and then found by softening the feces with water and straining through cheese cloth. Or else, the specimen of feces may be sent to the nearest state-board laboratory in order to determine the presence of hookworm eggs.

I have cured some cases of chronic anemia, in children, that were due chiefly to errors in diet causing chronic indigestion. The boy's slow pulse (66) does not suggest a severe degree of anemia. Or, perhaps, the pulse is slowed by bile retention. (Or is the pulse rate a misprint?) So slow a pulse speaks against tuberculosis. If the report about sugar in urine is correct, in this case, that would, of course, suggest an antidiabetic diet.

In general, I have found it necessary to adopt dieting strictly in accordance with the degree of indigestion present. This 15-year-old boy may require a diet suitable for an ordinary boy of 5 or 6; perhaps even an infant's dietary of milk, buttermilk and fat-free soup might be suitable for three or four weeks.

Of course, if the recent history suggests malaria still being present, the boy needs calomel, quinine and arsenic.

Candy and other sweets clog up the liver and should be stopped. Allow oranges, apples, pineapple juice and lemonade instead.

The recorded observation of the face swelling during sleep suggests kidney trouble. Be sure to examine the urine frequently as to total quantity, specific gravity, high acidity and albumin.

It is to be kept in mind that anemia is often caused by snuff dipping or cigaret smoking.

All correspondents in reporting cases should make complete statements regarding all the vital functions of the body, going over the digestive, respiratory, circulatory and eliminative organs in a systematic manner. Thus, in discussing conditions of respiratory organs, begin at the nose and end with air vesicles and pleura. In describing digestive system, start at tongue and teeth and end at hemorrhoidal veins.

In this way, many a case will clear itself up and a doctor that has been calling for help may easily develop diagnostic skill enough to report cases fully for the en-

lightenment of others.. Thus a "leaner" may become a "lifter." Ella Wheeler Wilcox has written some wonderful poems, but I regard none more highly than the one in which she describes the two great classes in the world, not the rich and poor, not the grave and gay,' not the proud and the humble, not the old and young, but those who lift and those who lean; and she remarks pathetically that there is only one who lifts for twenty who lean. All doctors should be lifters.

HENRY BORST.

Pensacola, Fla.

Queries

QUERY 6457.—About Dispensing Narcotics." G. L. H., Michigan, asks whether a country physician has the right to leave with his patients cough remedies containing in each pill 1-64 codeine of sulphate, or morphine sulphate 1-100.

In reply to this question, we expressed the opinion that in case of a bona fide prescription, or dispensed remedy, no exception will be taken to the ordering of a reasonable quantity sufficient to last for a few days, though this should in no case be more than is needed from one visit to the other.

In order to make certain, we submitted the question to the Commissioner of Internal Revenue, Treasury Department, Washington, D. C., and received the following reply which we copy verbatim because of the legal importance attaching to the question. The letter received from the Office of the Internal Revenue is as follows:

"Reference is made to your letter of the 25th ultimo, requesting whether it is permissible under the Harrison Narcotic Law, as amended, for a physician to leave with his patients 500 tablets of the following compound:

Codeine sulphate	gr. 1-64
Emetoid	gr. 1-64
Aconitine hydrobromide	gr. 1-3000
Hyoscyamine sulphate	gr. 1-4000

"You are advised that this formula indicates clearly that the preparation is intended as a cough remedy, and, as such, it may be permissible for a physician to leave such a number of the tablets with a patient. This office does not attempt to indicate the quantity of narcotic drugs or preparations which may be dispensed or prescribed at a single dispensing or upon a single prescription, or to designate the frequency of such dispensings or prescriptions. The physician who dispenses or prescribes drugs or preparations is primarily responsible and will be held to a strict accountability for any drugs which are found to have been used illegitimately through his dispensing or prescribing.

"The Act does not prohibit the dispensing or prescribing of narcotic drugs or preparations for the treatment of disease, and the quantity which may be dispensed or prescribed at any one time may vary according to the circumstances attached. Accordingly, it is to be expected that the good faith of the physician dispensing or prescribing the drugs or preparations will govern the quantity and dosage to the extent which seems necessary for the proper treatment of the patient."

QUERY 6458.—"Nuclein in Conjunction with Bacterin-Therapy." O. F. B., Michigan, refers to Query 6433 (July issue), in which the combination of nuclein with bacterin-therapy was considered. Regarding our suggestion to use nuclein hypodermically twenty-four hours after the injection of a bacterin, in order to stimulate the production of opsonins and of phagocytes, so that phagocytosis could occur more readily, the Doctor says:

"Of course, you are aware that the hypodermic use of nuclein is painful. So, I am asking you whether yeast given by mouth would produce the same effect and, perhaps, overcome the leukopenia that so frequently is present in influenza-pneumonia, or at least, was last year. This is in preparation for the coming trouble that we all are expecting.

First of all, we wish to take issue with our correspondent as to the pain declared to attend the hypodermic injection of nuclein-solution. Employing the nuclein-solution specially prepared for hypodermic injection, the present writer has lately

given a great many injections and has heard virtually no complaint; in fact, he has been assured by many patients that the procedure was entirely unobjectionable. There usually follows a very slight swelling, possibly a little discoloration, owing to the mechanical pressure of the injected fluid upon the tissue-cells, but, no reaction occurs, and, certainly, no inflammation nor pain worth speaking about. Of course, the alcoholic solution of nuclein, which is intended for internal administration, is extremely painful when injected hypodermically.

As for substituting yeast taken by mouth, it is true that this will have a similar effect as the nuclein, but, it requires very large doses, say, one to two of the commercial cakes per day, while the effect is not nearly as certain as is that from nuclein hypodermically administered. Furthermore, this effect is not established for some time, probably not earlier than ten days after beginning the course. Hence, we still believe that the hypodermic injection of nuclein-solution, of a proper make, is the most appropriate treatment for the purpose intended.

Query 6459.—"Hypodermic Cathartics." J. J. M., Illinois, writes: "A colleague recently mentioned a drug that will cause the bowels to act when given hypodermically. Tell me the name of it?"

Probably it was physostigmine salicylate that was suggested by your friend as a hypodermic cathartic. As a matter of fact, this drug, as also arecoline, while acting excellently in veterinary practice, does not prove particularly satisfactory when administered to the average human being. In some instances arecoline produces copious dejections, while, in the case of other individuals, twice the amount of the drug may be given without any effect whatever, and yet other people will suffer severely from headache and nausea.

Physostigmine salicylate (eserine), also, has produced unpleasant symptoms in many instances, but, very rarely satisfactory catharsis. Perhaps the most satisfactory hypodermic cathartic is C. P. magnesium sulphate. The only undesirable features of this are, the somewhat large dose required and the toxicity of this salt when introduced into the blood. Two grains in sterile solution produce copious dejections within three hours.

Convallamarin, when given in large doses, acts as a purgative; however, it is not safe and is rarely or never administered hypodermically—at least not in such quantities as would produce catharsis.

Query 6460.—"Regrowth of Nails." M. C. B., Nebraska, is treating a young woman, aged twenty-two years, musician, whose first finger was pinched in a door with the result that the entire nail fell off. The Doctor asks us how "a good natural-looking nail may be made to grow, as the young lady is in great distress over her future."

In the average case, little or nothing can be done to control the growth of a nail. However, unless the matrix has been very severely injured, the new nail, if taken care of, will assume a natural appearance in the course of time.

If there is an excessive nail growth, it may first be thoroughly softened by means of some hot water in which a little sodium bicarbonate or borax has been dissolved and then carefully cut or filed away. The writer prefers pumice to a file. The subsequent overgrowth should be kept under control with scissors or a sharp knife. If there is a tendency to extreme brittleness or hardness of the nail, a soaking every two or three nights with one of the alkaline solutions named may be tried, the part being subsequently enveloped in a plain unguent, such as cold-cream or just vaseline. If the nail refuses to grow, nothing, of course, can be done to remedy the condition.

You will find a rather interesting chapter on diseases of the nails and the anatomy of the parts in Stelwagon's "Diseases of the Skin."

Unfortunately, you do not tell us how severely the terminal phalanx was injured or how long ago the accident occurred.

Query 6461.—"Mastisol or Sterisol, or Skin-Varnish." V. A. G., Illinois, says that, some time ago, there appeared in these pages formulas for a skin-varnish that, applied to pieces of linen or cambric, yielded an excellent surgeons'-plaster, in every way equal to the commercial rubber plasters, that can be detached and reapplied. He has forgotten the copyrighted

(German) name given to this adhesive liquid, consequently can not look up those articles in the annual indexes.

The name referred to is *mastisol* (suggestive of mastix and solution), but, it also may be traced in the indexes under "Varnish, surgeons' antiseptic" (1914, July, p. 620) and "Varnish, skin, for wounds" (1915, January, p. 60). In the latter volume, it also is listed under "Plaster, liquid, surgeons'." *Stereosol* is another proprietary name. This name seems to suggest a liquid solid (plaster?). The foregoing will serve as a pointer to the same matter printed in other volumes of that period.

It may be added that, at that time, these and allied preparations already had attained considerable popularity in the armies of the central empires.

Query 6462.—"Herpes Zoster." J. A. C., West Virginia, was, some weeks ago, stricken with a very severe pain along the course of the lower ribs on the left side and in about one week had, extending from the ensiform cartilage to the spinal column, "the most beautiful and compact herpetic eruption ever beheld by mortal eye." "I had," he continues, "enough shingles to roof a dairy-barn and couldn't sell one. However, the rash disappeared in about ten days, but, the pain has persisted, has been of the most excruciating character, so that, since the inception of the trouble, I have not had one hour's ease. I can neither lie, sit, squat or stand in comfort. I have gotten on my knees, stood on my head, lain on my back and on my belly and on both sides, all without getting relief. This thing is getting somewhat monotonous, to say nothing more disrespectful about it.

"It would be easier to name the things that were not applied, either to the external or the internal economy, than to recapitulate those advocated and tried. The devilish pesticator has gotten away with twenty-two pounds of my good, honest, hard-earned avoirdupois. I am sixty-seven and have been diabetic for the past six or eight years, but, without perceptible impairment of the general health. I have always been unusually strong and vigorous. Have been in active and continuous practice for forty-four years; the first twenty-one, village and country.

The last remedy I have resorted to is strontium salicylate and have not had so severe pain for four or five days. What can you do for me?"

We wish to assure you of our sincere sympathy, for, if there is a despicable, intolerable and intractable disease, it is herpes zoster. The acute stage is bad enough, but, when the pain persists long after the inflammatory patches have disappeared, the patient and his physician alike are liable to lose faith in the value of therapeutic procedures.

It would be useless for us to enter into any discussion of the pathology of this disease; still, we may call your attention to the fact that the prognosis is almost invariably favorable, all the symptoms usually disappearing in from two to four weeks. Unfortunately, however, the duration may be prolonged to one or two months, while the possibility of persistent neuralgia or other sensory and motor disturbances following the eruption has always to be kept in mind.

Bearing in mind the fact that your advanced age and diabetic condition, we should be inclined to prescribe, first of all, a rest, change of air, most careful dieting, and thorough elimination.

As strontium salicylate is proving beneficial, we, certainly, should continue the use of that drug and, in addition, incline to advise taking zinc phosphide, say, 1-6 grain three or four times a day.

The urine should be examined from time to time and a therapeutically clean intestine secured, preferably by the initial use of divided doses of blue mass and soda, followed by sodium sulphocarbolate, in rather full doses, for a week or two, and, later, half the contents of an ampule of bacillus-bulgaricus bouillon, morning and night, with 4 ounces of skimmed milk.

The present writer has been able to control the pain, that follows in the wake of shingles, by means of the galvanic current, of one to three milliamperes, applied for five to ten minutes once or twice daily; the positive electrode being placed as near as possible to the main nerve-supply of the part, the negative one being moved gently to and fro over the diseased area.

We sincerely wish that we could offer you something more positive, but, believe that, if you will follow out these suggestions, you not only will get rid of the pain that now tries your Christianity, but, will regain a very large part of your departed avoirdupois.

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Is Autointoxication a Myth?

DR. JOSÉ ROSELL of Barcelona, Spain, a professor wellknown in various German Universities, has published a brochure[1] containing an account of an extensive series of coprologic studies which he has made in both health and disease. The object of these studies was, to discover what scientific basis, if any, there is for the widely accepted doctrine of intestinal autointoxication which is commonly alleged to be due to putrefaction of imperfectly digested nitrogenous foods. The results of his experiments with various diets, and the study of the resulting feces chemically and microscopically, have led him to conclude that the doctrine of autointoxication from putrefaction, as commonly taught, is a myth and, consequently, that any line of therapeutics based upon that theory is unscientific. A careful perusal of the tabulated results of his experiments, together with the opinions of other investigators quoted by him, compel one to admit that he has made out a strong case.

[1]Nuevos Puntos de Vista sobre Fisiopatologia y Terapeutica Intestinales basados en Estudios Coprológicos. Por el Dr. José Ma Rosell, Madrid, 1919.
New Points of View on Intestinal Physiopathology and Therapeutics based on Coprologic Studies. By Dr. José Ma Rosell, Madrid, 1919.

The theory of autointoxication was based upon the fact that, in certain abnormal conditions of health, there are found in the feces and in the urine certain aromatic substances of the sulphur-ether type, such as indican (indol), phenol, amidoacids, et cetera It has been believed that these aromatic bodies are the result of putrefaction, taking the form of ammoniacal decomposition under the action of proteolytic bacteria acting upon the undigested remains of nitrogenous food, such as meat, fish, eggs, et cetera.

Dr. Rosell has tabulated in detail his experiments and their results. Out of the whole number, he has selected as typical 13 cases of intestinal disease and one healthy individual for comparison. There are cases of nervous and fermentative dyspepsia, enteritis, colitis, sigmoiditis, tuberculous enteritis, anemia, with intes-

tinal catarrh, constipation, diarrhea, typhlitis, and catarrhal jaundice.

The following types of alimentation were employed as test diets, each type being given for three days:

1. What is known as the test diet of Schmidt, consisting of a small amount of rare-cooked veal, an egg, toast or hard biscuit, oatmeal, potato, butter, milk, tea or cocoa.
2. Milk diet, with a little hard biscuit.
3. Bland starch diet—consisting of soups made of cereals, rice, oatmeal, corn or wheat, fine and well cooked.
4. Bland nitrogenous diet—eggs in custards and soufflees, calves' brains, gelatins, glutens.
5. Vegetables—green or dried, potatoes, turnips, beets, greens, salads, fruits raw or cooked, almonds, filberts, raisins, sweets made of flour and sugar.
6. Animal diet—free choice of meats, eggs, fish, shell-fish, cheese, some gluten bread.
7. "Water diet"—that is, fasting, with the ingestion of water only.

With each of these diets, a thorough chemical and microscopical study of the feces was carried on.

The author does not maintain that there is no absorption of poisonous products from the intestine, but, that those substances, instead of being the products of decomposition of undigested food, are really exudates of the intestinal mucosa, true excretions, the products of metabolism in the tissues. He uses the term "so-called" in speaking of these poisons found in the feces and urine, because he claims that they occur in such small quantities that up to the present time they have not been isolated in amounts sufficient for reliable study.

It has been customary to put patients supposed to be suffering from autointoxication upon a milk diet to stop the putrefactive process in the intestine, but Dr. Rosell found that, in certain patients, instead of the milk diet being followed by the disappearance of indican, phenol, et cetera, from the feces and urine, there even was an increase of these substances while the patient was improving in health. From this fact, he concludes that they are not the products of putrefaction of undigested food and must, therefore, be excretions of the intestinal glands. He also regards it as throwing doubt upon the great toxicity that has been attributed to these bodies.

The description of his experiments and the detailed effect in each patient is too long to be transcribed here; so, we will content ourselves with giving, in addition to his conclusions mentioned above, the reports of a few other investigators whose results are similar to his.

Albu and Eisenstaedt found no diminution of the aromatic bodies in the urine under a diet of starches and milk, but in many cases found them more abundant than under a meat diet.

Von Morazewsky found that the quantity of indol in the feces was increased on a diet of starches, and decreased on green vegetables and meat; and Munk, feeding the same patients on certain vegetable salads with cucumbers and fruits, found the phenol in the feces more abundant than on a meat diet, in some cases even 8 times as great.

Albu found in habitual vegetarians strong reactions of indican.

Baumstark and von Morazewsky, in prolonged experiments, established the fact that the amount of indoxyl, or indican, in the urine is independent of the amount of indol in the intestine.

Ury, a much quoted investigator, found no appreciable difference between the indol, phenol, and aromatic oxy-acids in the feces, whether the individual was constipated, or had normal evacuations, or evacuations produced by castor-oil.

The influence of certain reflex irritations is interesting in this connection. Blumenthal found the indican in the urine increased in perityphlitis, gastric and duodenal ulcer, under any diet whatever. Becaroni found it increased by massage and other mechanical irritations.

Hofman had a case of hemiplegia in which strong indicanuria was accompanied by indican in the sweat, staining the skin blue in the crural and scrotal region.

Gans describes a case of intense nervous disorder in which indican was plentiful in the urine and there were blue spots all over the body which stained the clothing. With cessation of the psychic condition, the indican disappeared. In another patient, the indican came and went with menstruation.

Freund and Singer report cases of skin troubles, senile prurigo, acne vulgaris, and

pruritus, in which there was indicanuria, disappearing on curing the skin disease.

In fasting, a number of investigators found, as did our author that the indican was not decreased but increased, in many cases, a fact which is strongly suggestive of tissue metabolism as the source of these aromatic bodies.

Dr. Rosell's experiments, and his publication of his results, and those of other investigators along the same lines, will, it is to be hoped, stimulate further study of this interesting subject.

If a man thinks sickness, poverty and misfortune, he will meet them and claim them eventually as his own.—Carlyle.

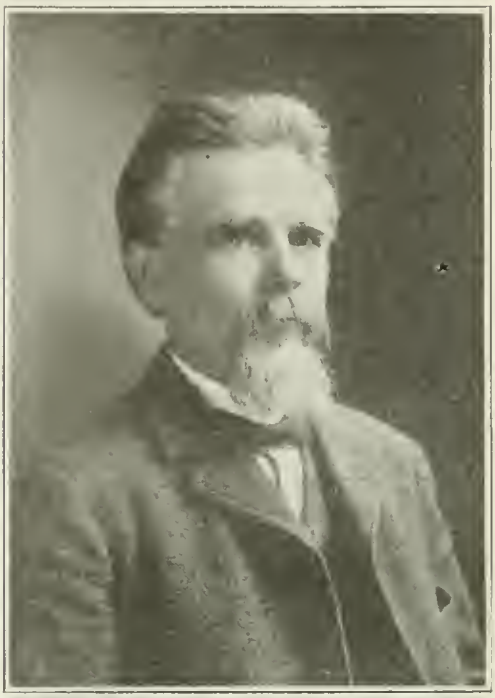
ADOLF G. VOGELER

On October 30, 1919, we lost by death one of the strong silent forces which have meant so much in the building of CLINICAL MEDICINE. Upon that day, Adolf G. Vogeler, who has been associated with the editorial department of this journal for twelve years, passed away after a prolonged period of ill health terminating in an attack of cerebral hemorrhage.

Mr. Vogeler was born in Germany on October 24, 1851, and came to this country with his parents when he was but ten months old. His father was a physician and did a large country practice only a few miles west of Chicago. He was educated in a Lutheran denominational school, studied three years in Concordia College at Fort Wayne, Indiana, and graduated from the Chicago College of Pharmacy, in 1873, standing at the head of his class. In 1875, he became owner of a drugstore, but retired from the retail business in 1889.

In 1883, he became associate editor of the *Western Druggist*, giving up his position only a few months later, but, in 1889, he again became connected with this journal which he then served as editor for several years. In 1904, he resigned from this position on account of ill health, and then spent about a year on the Isle of Pines. In 1907, he became copy-editor of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, a position which he occupied to the time of his death. For the last three or four years he had been unable, on account of ill health, to come to the office, but had carried on his work at his own home.

The preceding rough outline of Mr. Vogeler's life conveys no conception of the exceeding importance of the work which he did. Not only was he one of the best-informed men in this country with regard to pharmaceutical problems, but, he was a student of the philosophy of pharmacy and medicine, two subjects that, to him, were of the greatest interest and importance. With possibly two or three exceptions, no man in the country was so conversant with



Adolph G. Vogeler, 1851-1919

the literature of pharmacy as he, and, as he had a highly developed critical faculty, he was an invaluable helper and guide in the editorial work of this journal, since practically every piece of copy which has been printed in it for the last twelve years passed through his hands.

In another respect, Mr. Vogeler was an unusual man. Through many years of editorial experience and study, he had acquired a remarkable technical knowledge of the English language. Few men knew, so well as he, the exact meaning of words, the correct structure of sentences, the proper use of punctuation. We pride ourselves that CLINICAL MEDICINE is one of the most carefully edited professional journals in this country. That it is so, we owe very largely to the "style" that he did more than anyone else to develop. He in-

sisted upon accuracy of statement; he disliked all obscurity of expression.

He was a man of very unusual mind, intellectual, thoughtful, uncomprising in his insistence upon what he believed to be the truth. Under different circumstances, he might have become a great man, but, for years, he had been handicapped by ill health and by a temperamental reticence that prevented him from mingling with other men.

Those of us who knew Vogeler will miss him greatly, and we know that our readers, without always knowing why, will also miss the quiet, strong, constructive influence that he exerted upon THE AMERICAN JOURNAL OF CLINICAL MEDICINE.

Faith is a great antidote for many. We fear because we cannot see the way. Faith sees the way.

DOCTOR TAYLOR OF "THE MEDICAL WORLD"

On November 5, we received telegraphic information that Dr. Charles F. Taylor had succumbed to cardiac disease from which he had suffered for years and which had confined him to a sick bed for several months. Doctor Taylor was known

Dr. C. F. Taylor, 1856-1919

to the medical profession all over the United States as the editor and publisher of *The Medical World*. He was also a brilliant and prolific writer on local, national and international governmental problems and published many books and pamphlets on these questions. He published a quarterly magazine known as *Equity*, which attracted international attention among public men and students of governmental problems. Doctor Taylor's work as a publicist was conducted at great expense for what he considered to be the public good and without thought of financial or other personal reward for himself.

Charles Fremont Taylor was born on July 3, 1856, in the little village of Attica, Ind. There, his education was begun in the public schools and, later, continued at the Normal College at Valparaiso, Ind. Later, he attended the Louisville College of Medicine for one year but finished his medical course and took his degree, in 1880, at the Central College of Physicians and Surgeons of Indianapolis, which subsequently was merged with the Indiana Medical College into what is now called the Medical College of Indiana.

He began practicing medicine in Putnam County, Indiana, and later continued to practice his profession in Indianapolis. In 1883, he left that city and went to Philadelphia with the idea of starting there a medical journal along new and original lines. Doctor Taylor's plan was, to establish a journal that would be edited entirely in the interests of the medical profession, free from the commercial interests of advertisers. His idea was, to give his readers information of practical value rather than theoretical articles and reports of unusual cases that the average physician in family practice rarely if ever encounters.

With this purpose, Doctor Taylor started *The Medical World*, virtually "on a shoestring". All his worldly possessions, when he came to Philadelphia, were carried in a hand bag and he had less than $500 in cash and credit for the enterprise. That he had struck the right vein, was evident from the first and, in a few years, *The Medical World* became, as it still is, one of the most popular and widely circulated of the medical journals in the United States.

But, with the increasing success of his medical journal, Doctor Taylor was not content to merely sit down and accumulate a fortune as he could easily have done. His mind was alert to the need of better government in city, state, and nation. It was in the early nineties that he began activities along these lines, which later

made him a figure of national prominence in various movements for popular government.

In all of these public interests, Doctor Taylor never failed to keep up his personal direction of *The Medical World*. One of the notable facts of his career is found in his determination to tell the thousands of doctors in *The Medical World* what was being done in the way of governmental reform. To do this, he conceived the unique feature, for a medical journal, of what he entitled "Our Monthly Talk." This was such an innovation that many of his subscribers objected; but, he insisted that a physician should be a citizen as well as a doctor; he persisted and, finally, won many more subscribers than he lost. This persistent work, which he has kept up since 1894, has had much to do with awakening the medical profession along these lines.

Later, he started another unique department in *The Medical World* called "Business Talks to Doctors" and in which he discussed physicians' business problems. In this department, he has doubtless been instrumental in saving hundreds of thousands of dollars to doctors who are, as a rule, careless in their collection and "easy marks" to promotors of all sorts of fake securities.

The Medical World will be published in the future by Doctor Taylor's nephew, Edgar S. Taylor, who has been active in the business for twenty-two years and who has had entire charge of the business management for many years. The editorial department will be conducted by Dr. John C. Rommel, who has been associated with Doctor Taylor for a number of years and who in recent years has done all of the editorial work with the exception of the Business and Monthly Talks which were always written by Doctor Taylor.

There has always been a close bond of sympathy between Doctor Taylor and us. The aims of *The Medical World* and of CLINICAL MEDICINE had at least one thing in common, and that was, the desire to give the utmost practical assistance and sympathy to the man on the firing line. This feeling was intensified by the warm personal affection which we felt for Doctor Taylor and which we believe he entertained for us. We have felt it a great privilege to count him among our friends and we have enjoyed and profited by this friendship.

During periods of great trial and anxiety, he was a warm-hearted, loyal, sympathetic, big-hearted man—a man whose great desire in life was, not, the accumulation of money, or power, or fame, but to be of service to his fellows and to the world, and this desire was expressed not only through his work in the *World*, but also through the little journal *Equity*, and his numerous and stimulating contributions to the great struggle for economic betterment.

Under the able direction of Doctor Rommel and Mr. Taylor *The Medical World* will continue to prosper but, there will be thousands of us who will miss in its pages the kindly personality of this man, who in many respects was truly great.

The intellect has only one failing, which, to be sure, is a very considerable one. It has no conscience.—Lowell.

WOOD ALCOHOL

The following article is taken from *The News Letter*, which is published by the National Committee for the Prevention of Blindness, Inc., at 130 East Twenty-second St., New York, N. Y., and is given space here in its entirety for the reason that it states the very important problem of wood alcohol very fully. Physicians throughout the country should see to it that their clients and patients and all those with whom they come in contact are fully informed concerning the serious dangers inherent in the internal use of wood alcohol. It is one of the most pernicious poisons that we have because of the cruel damage that it works in those using it wrongly. Unfortunately, it is the ignorant who do so, those who consider only the fact that it is an "alcohol" and want something with a kick in it. Doctor, please tell people clearly that wood alcohol is a rank poison, that it should never be used at all for medicinal purposes, not even for external application. Its sole place where its employment is at all justified is, in the industries. The article referred to is as follows:

During the last few months scarcely a day has passed without bringing to the office of the National Committee for the Prevention of Blindness press-clippings announcing new cases of death and blind-

ness resulting from the drinking of wood alcohol or denatured alcohol. These cases are due, in part, to the ignorance of many regarding the poisonous qualities of these fluids and, in part, to the fact that unscrupulous persons sell mixtures adulterated with wood- or denatured alcohol. So alarming has the matter become that the office of the Commissioner of Internal Revenue has issued the following notice:

"To Collectors of Internal Revenue and Revenue Agents in Charge:

"T. D. 2914, issued today and showing additional matter to be affixed to containers of completely denatured alcohol, is called to your especial attention.

"Reports recently received in the Bureau establish that completely denatured alcohol is being used extensively for bathing and rubbing purposes. This is contrary to the law and regulations, and such uses can not be tolerated, as the completely denatured alcohol is highly injurious to the skin and animal tissue.

"It is also established that completely denatured alcohol is sold by irresponsible dealers under such circumstances as to assure them that it is being used for beverage purposes. Where it is so used for any length of time, blindness inevitably ensues, and the continued use can only result in death.

"Collectors should use every means at their disposal to make known to the public the dangers of either external or internal uses of completely denatured alcohol. Wherever collectors or revenue agents in charge hear of a misuse of completely denatured alcohol, a most thorough and careful examination should be made immediately and all the facts fully reported to the Commissioner for the infliction, upon the responsible parties, of the ultimate penalties provided by law.

"To Internal Revenue officers and others Concerned:

"In view of the grave and extended abuses of the use of completely denatured alcohol reported, it is deemed necessary to print upon the labels affixed to wholesale and retail packages a further and more scientific warning as to its use than is shown on the present required label.

"In addition to the present matter on the labels, there will be required, hereafter, on all new labels, the printing, in large letters in red ink, under the skull and bones symbol, the word POISON, and at the bottom of the label there will be printed the following statement:

'Completely Denatured Alcohol is a violent poison. It can not be applied externally to human or animal tissues without seriously injurious results. It can not be taken internally without inducing blindness and general physical decay, ultimately resulting in death.'

"Until the present stocks of labels are exhausted, this additional matter may be affixed to the containers on a separate label pasted above the present required label.

To help in educating the public to a wide knowledge of the dangers from the use, external or internal, of wood alcohol or denatured alcohol, the National Committee for the Prevention of Blindness has enlisted the cooperation of the press throughout the country in printing a short popular article on the subject. A more comprehensive exposition was prepared by the Field Secretary, to appear in the October issue of *Safety*, published by the Safety Institute of America.

To the same end, the National Safety Council issued a special bulletin on the subject that will come to the attention of over five million workers in the industries of the United States.

Failure exists only in the grave. Man, being alive, hath not yet failed; always he may turn about and ascend by the same path he descended by; and there may be one that is less abrupt (albeit longer of achievement) and more adaptable to his condition. —"The Magic Story."

A NEW LIBRARY FOR THE UNIVERSITY OF LOUVAIN

A few weeks ago, Cardinal Mercier of Belgium visited the United States of America for the purpose of expressing his personal gratitude and that of the Belgian people for the aid and sympathy rendered to Belgium, by the American people, during the past five years.

Cardinal Mercier will go down in history as one of the heroice persons who disdain, in time of danger, to consider their individual safety and welfare, even jeopardizing their lives for the sake of opposing unjust oppression and defending the wronged and the injured.

The situation of Belgium during and since the war is a peculiarly appealing one. Robbed of almost all of its resources, except for its indomitable courage, the Belgian nation literally is obliged to start afresh in order to regain its position among the civilized nations of the world.

To physicians and to other professional people, the wanton destruction of the University of Louvain was a particularly objectionable and despicable instance of wartime excesses and, among the attempts to restore this ancient seat of learning to renewed usefulness, there has been formed

a National Committee of the United States for the Restoration of the University of Louvain.

As a tribute to Cardinal Mercier's personal heroism, this committee hopes to be able to raise a fund for the building and equipment of a library for the University of Louvain to take the place of that destroyed by the invading German armies in 1915. The chairman of the committee is President Nicholas Murray Butler, of Columbia University. The office of the secretary is located at 407 W. 117th St., New York City. Contributions, large or small, toward this restoration fund may be sent either to Doctor Butler or to the secretary.

This is a worthy undertaking and we hope that many physicians may spare a dollar or two—or more, to further it,

INDUSTRIAL VOCATIONAL REHABILITATION

We are informed that vocational rehabilitation, similar to that now in operation for disabled soldiers and sailors, is provided for "persons disabled in industry or otherwise", in the Smith-Bankhead bill which has just passed both houses of Congress.

The bill provides one million dollars yearly to enlarge the scope of the orginal Smith-Hughes act, creating the Federal Board for Vocational Education, and its recent extension so as to assure also to the maimed victims of industrial accidents the opportunity for vocational re-training into skilled occupations suited to their physical powers and restoration to useful, self-sustaining jobs.

Physicians, especially industrial physicians, employers, state workmen's-compensation officials and organized labor endorsed the campaign for this protective legislation which was aggressively led by the American Association for Labor Legislation, the latter being active also in promoting workmen's health insurance as the next big step following the successful development of workmen's compensation laws.

As was pointed out in the congressional debate, there are at present more than one hundred thousand permanently incapacitated workers in the United States, who will be benefited by this legislation, and this large army of casualties of peace is being increased at the rate of 11,500 every year.

Under the bill as passed by Congress, the individual states must provide at least one dollar for each dollar expended by the federal government, in behalf of their own crippled workers. Several states have recently taken favorable action in anticipation of the congressional cooperation now assured in the Smith-Bankhead bill.

Seek comrades among the industrious, for, those who are idle will sap your energies from you.—"The Magic Story."

THE AMERICAN SOCIAL HYGIENE ASSOCIATION

An army doctor has stated that an increase in the venereal-disease rate follows in war as surely as the recoil accompanies the discharge of a gun. Probably, this has been true of past wars, but, it by no means is inevitable. Surely, we should be sorry to think that it must be.

In the words of Dr. William H. Zinsser, the director of the department of public information of The American Social Hygiene Association, Inc., (105 W. 40th St., New York), the spread of any disease is checked when "Tom and Jack" and "Dad and Son" can openly discuss its causes and effects. The venereal diseases will be put in this class if honestly regarded as a problem affecting the health, happiness and efficiency of any community. This accomplished, they can be made as harmless as yellow fever now is in the Panama.

The American Social Hygiene Association has issued, in the immediate past, several publications in which venereal diseases are discussed on a sane basis and considered from a commonsense viewpoint. These publications are not technical but present facts in an interesting manner readily to be understood by the laity. That this is both needed and appreciated, is shown by numerous communications from factory and farm, from home and office. Doctor Zinsser relates that "Mr. Mechanic writes for advice and information, while Mr. Manager is pleased to contribute to a practical work that appeals to him."

This unafraid and commonsense attitude in dealing frankly with the venereal-disease problem is a late development, to be sure. Yet, it follows necessarily in view of the fact that the old ostrich-like meth-

ods, through which we tried to eliminate the existence of the evil by hiding it from view, have succeeded only in promoting its constant aggravation and more serious development.

Publicity methods having proved effective, the results of the antivenereal disease campaign are limited only by the number of people that can be reached; the success of the campaign is dependent upon the popular interest and the support granted to the work.

Such support should be given, first of all, by physicians and, through them and with their cordial encouragement, by lay people. Any man or woman believing that the principles of social hygiene should be advanced in every way, consistent both with established procedures and with new methods which give sound assurance of promoting the social health, is eligible to apply for membership.

It is to be kept in mind that for the present the main activity of the American Social Hygiene Association is being directed against the venereal diseases, this movement being maintained in cooperation with the United States government (U. S. Public Health Service) and with state agencies.

No one can deny the great need or the supreme importance of this movement. It is as seriously needed as is the antituberculosis campaign and it is inevitably our present duty to fight against one of the most serious impediments to the continued healthy and wholesome progress of our race. We wish to encourage physicians and lay people to apply for membership in The American Social Hygiene Association. The annual dues are but small ($2.00) and the good that this money accomplishes will be the greater the more such annual dues are paid in; in other words, the more people apply for admission to the Association.

Whatsoever you desire of good is yours. You have but to stretch forth your hand and take it.—"The Magic Story."

THE NARCOTIC-DRUG PROBLEM

In his discussion on opium as the sheet-anchor of treatment, appearing among the leading articles of this issue, Dr. Thomas S. Blair, who is chief of the Bureau of Drug Control of the Pennsylvania Department of Health, shows that ninety percent of the narcotic drugs dispensed by physicians or prescribed by them for dispensing through druggists are ordered by only one-third of the physicians and dentists of the state of Pennsylvania, and that the other two-thirds of the physicians make use of only ten percent of the total amount of narcotics administered.

Doctor Blair shows that the one-third employing that disproportionately large amount of narcotic drugs is recruited from the less-well equipped and educated members of the medical and dental professions. It is to be inferred from this that, with more exact education and greater ability, medical men learn to meet the indications, apparently calling for opium and kindred drugs, in other ways that are equally efficient, as far as the relief of pain is concerned, while, undoubtedly, less fruitful or dangerous consequences.

We desire to impress upon our readers the importance of studying Doctor Blair's communication with great care. One may have no matter what personal opinion as to the justice or the necessity of narcotic-drug legislation limiting and controlling the dispensing and prescribing of habit-forming drugs, or of prohibition legislation, making the manufacture, sale, and use of alcoholic beverages illegal. The point at issue is, that both classes of remedies, narcotics as well as alcoholics, have been sadly abused in the past, and it further seems impossible for us, as a people, to practice moderation in anything. Seemingly, we have to go to extremes either in one direction or another.

We have our personal opinions; however, the fact is, that the dispensing and prescribing of various potent drugs and, incidentally, drugs endowed with grave possibilities of danger have been circumscribed and limited by legal enactment. We believe that, as a whole, this "interference with the personal liberty of American citizens" will result in the greater good of the greater number of citizens. We are convinced that the ultimate outcome of this restrictive legislation is advantageous to our patients and to the nation at large.

THE MANAGEMENT OF INFLUENZA AND PNEUMONIA

In another department of this issue of Clinical Medicine, Dr. Bernard T.

Maloy describes a mode of treatment by which he has been able to guide a great many influenza and pneumonia patients to recovery, even though their condition at the height of the disease was extremely serious. In Doctor Maloy's discussion, the confident employment of a deliberately planned drug therapy stands out markedly from among the mass of publications on the treatment of these acute infectious maladies. It is pleasing to the general practitioner of experience to see such convincing evidence presented that directly contradicts that pernicious "expectant" treatment of serious diseases and it is a cause for satisfaction to find our own assertions confirmed, that much good can be accomplished by active, well considered treatment for the relief, and prompt restoration to health, of influenza and pneumonia patients.

It will be noted that Doctor Maloy employed, among other things, various galenical preparations. Personally, we believe aconitine hydrobromide to be superior to the tincture, if only for the reason that the tinctures dispensed over the drug counter have been shown to be sadly unreliable as to strength. Likewise, our personal preference is for veratrine in place of veratrum viride; for atropine in place of powdered extract of belladonna, and so forth. That, however, can not cause us to raise an issue with Doctor Maloy. The principal point is, our cordial agreement with him in his excellent, optimistic, and courageous therapy in the treatment of very serious diseases.

The Ishmaelite and the leper are the same, since both are abominations in the sight of men—albeit they differ much, in that the former may be restored to perfect health. The former is entirely the result of imagination; the latter had poison in his blood.—"The Magic Story."

PHYSICIAN'S SECRETARY, OFFICE ASSISTANT, AND HOME HELPER

In a recent number of the *Boston Medical and Surgical Journal*, there appeared a correspondence from Dr. J. Madison Taylor on a subject, or, rather, a number of subjects that have given rise to much difficulty, namely, the question of secretaries and assistants to physicians and that of home helpers to the physicians' wives. Doctor Taylor suggests that it would be possible to have these three positions filled, not only in a given physician's office, but also in his home and by the same young lady.

This suggestion is not without much to commend it. The third part of the triple duties, namely that of home helper, need not give cause for unfavorable criticism. As, years ago, in New England, young women would spend a year or two in the houses of friends or acquaintances of their parents as "mothers' helpers", where they took a postgraduate course, as it were, in housekeeping and managing a family, so, before the war, it had been customary in many German families to receive young ladies in the same manner, namely, as "mothers' helpers". They were on social equality with the family, being in no wise treated as servants and, indeed, very often occupied the position of an eldest daughter of the house.

As to the additional functions suggested by Doctor Taylor, namely those of office attendant and of secretary, we believe that this is quite feasible in small towns and country places; while, of course, in large cities conditions are so different and more complicated as to require individual treatment. Altogether, Doctor Taylor's plan seems to us to contain many possibilities incidental to solving the problems of many young girls who have completed their schooling and dislike to stick around at home, while for some reason or other it may not be feasible for them to take positions in stores or offices. It also helps to solve a problem for the doctor that may have been a very difficult one. Finally, the advantages to the patient and long-suffering doctor's wife are a further cause for commendation.

THE INDEX AND OUR PLANS

By the time that this issue of CLINICAL MEDICINE comes to your desk, Doctor, the Index, or table of contents, is being set up in type. It would have been included in the December issue, were it not for the fact that we are enjoined, by the printer as well as by the government to save paper as much as possible.

Therefore, we shall not print a larger edition of the Index than is called for. But, we want every subscriber of CLINICAL

MEDICINE who desires it to have a copy. Indeed, every one *should* have one and should have each year's file of the journal bound for later reference.

Now, please, everybody who desires to receive the Index, *please* sit down NOW and send us a postcard to that effect. Only, DO IT NOW; and don't ask for it a year, or two, or three years from now. On the number of requests received will the size of the edition depend.

Another thing: The next issue of CLINICAL MEDICINE will be the first number of the twenty-seventh volume. That means, that many subscriptions to the JOURNAL have run out and, now, must be renewed. Besides it will be necessary to raise the subscription price after New Year; so, it is policy to act at once. Please send in your renewal subscription promptly.

For this coming year, we have several mighty good things on the program. The series of contributions from the foremost French clinicians will be continued; we have about twenty such articles on hand at the present time. Also, we have received the promise of splendid articles from several prominent physicians in our own country, and we shall, probably, get many more.

We want to try to make CLINICAL MEDICINE even more useful and serviceable, in the future, than it has been in the past. For that, though, we need your help. We are making plans and are preparing several articles that will make you think. Having printed them, we shall put it squarely up to you to do your share, by entering the discussions that we intend to open, and, in that manner, to bring about an exchange of opinions and views on various matters that are of interest to physicians, *as* physicians and, not any less, as citizens.

CHRISTMAS TIME

This editorial is being written in November, and, as I gave the title, my secretary remarked: "Pretty hard to feel Christmassy now." It might seem so if we consider how short a time ago we complained of the heat and if we look out through parks and fields (though fields don't often come within our citified ken) in their variegated multicolored autumn-clothing.

Nevertheless, *tempus fugit* inexorably, and if you will look at your calendar you will find that it is really and truly Christmas month and Christmas time; which means, the last month of the year, and being followed by the beginning of a new year, a new space of time as we measure it, the beginning of a new volume of CLINICAL MEDICINE, and the time for making new resolutions—that for breaking them will follow later.

However, all joking apart, Christmas time naturally carries with it its own thoughts and sensations, joyfully anticipatory for children, pleasant or sadly reminiscent for grownups. The message of peace on earth and good will toward men has been disregarded so terribly during the last few years and we still find ourselves, politically, socially, and economically, in so distressing a period of reconstruction, there is, everywhere, so much unrest, dissatisfaction, turmoil, while in many parts of the world, even, war has not yet ceased, that the message of peace on earth does not seem to fall on very appreciative or receptive ears.

Yet, it is that which we are striving for and it is physicians, especially, who hold it as their duty and their privilege to follow the pursuits of peace, to mend that which war and other disturbances have injured, and to be a potent factor in the peaceful, happy, and successful life of the nation.

In truth, Christmas time is not, or should not be, limited to one week or one month of the year. The preacher's admonition that we shall keep and foster the Christmas spirit in our hearts the year 'round is dictated by higher views of our duties and privileges than those that commonly influence us. Let us keep alive the Christmas spirit; let us maintain it in our dealings with our patients and with all those with whom we come in contact, not forgetting our colleagues in the medical profession, even though they may be our competitors.

The Christmas spirit is the same that dictated the Sermon on the Mount. It is the root of the Golden Rule. It is the spirit of fair dealing, of honesty of purpose and of useful accomplishment.

A HAPPY CHRISTMAS TO EVERYBODY!

Leading Articles

Constipation as Seen in Soldiers*

By MARCEL LABBE, M. D., Paris, France
Professor at the Medical Faculty of the University of Paris;
Physician to the Charity Hospital, Paris

CONSTIPATION is one of the most frequent and, at the same time, most serious affections to which the war has given rise; despite the numerous cases of dysentery that soldiers have acquired in the Orient, there still are more cases of constipation in the army than of diarrhea.

The reason of this is easily understood. There is, first, the quality of the diet, which is too rich in meat and deficient in fresh vegetables, the effects of which are felt, particularly, by soldiers coming from rural districts (and who constitute the majority of our soldiers), accustomed, as they are, to food that is copious in amount and largely vegetable, which strongly stimulated the digestive secretions and peristaltic movements. Then all those living in the trenches experience great difficulty in emptying their bowels, which not only is a difficult, but, even a dangerous undertaking in the active sectors, where one runs the risk of being hit by a bullet while being at stool. In consequence, many men acquire the habit of emptying the bowel but infrequently, which, of course, leads to constipation. Furthermore, many men who, in civil life, took proper care of their digestion, could not continue those precautions (use of laxatives, enemas, suppositories) by means of which they formerly combated their tendency to constipation.

Dr. Marcel Labbé.

Clinical Forms of Constipation

Every degree of the affection is encountered from the simple and easily tolerated constipation, to the serious forms that are complicated with infection or intoxication and to attacks of peritonitis that appear in the course of inveterate constipation and have been mistaken, more than once, for tuberculous peritonitis.

Simple Constipation

Simple constipation would be devoid of interest if it were not frequently the prelude of more serious trouble. At first, one simply suppresses defecation. Then, constipation becomes a habit, which it is more and more difficult to overcome; it grows more obstinate and, finally, complications arise. Often, it remains latent and is well tolerated for a long time. The physician always must bear this in mind, for, many cases of dyspepsia observed among our soldiers have no other cause than this. The patient complains of abdominal pain, of distress and bloating after meals, sometimes of vomiting; his breath is fetid his tongue furred with a thick deposit

*Translated from the French manuscript.

or, it may be, merely yellowish. Palpation of the colon, especially in the left iliac fossa, discloses the presence of hard accumulations. After the administration of a purgative, these symptoms are relieved and, if one is careful to secure free evacuation of the intestines, by means of laxatives, and insists upon certain precautions as to eating, the constipation will disappear and the dyspepsia be relieved.

Spasmodic Constipation

Spasmodic constipation constitutes an advanced degree. The intestine, irritated chronically by the retained ingesta, reacts with a permanent spasm. This form does not remain unnoticed. Aside from the dietetic symptoms that are associated with every form of constipation, it is manifested by pain. Always the patient complains of a sensation of heaviness and of pain in the colon, mainly in the left iliac fossa, sometimes on the right side, or as producing the sensation of a transverse bar. When palpating the left iliac fossa, one readily feels portions of the descending colon and of the sigmoid flexure that are hard and slightly painful. Sometimes, one feels the transverse colon like a taut rope. At times, there are accumulations of feces in the large intestine, sometimes the colon does not move at all, despite all purgatives and enemas given, so that the lumps in the colon must be explained as resulting from intestinal spasm. Defecation occurs but infrequently or it may take place daily, however, only in insufficient quantity. The feces are discharged in the form of hard balls, frequently enveloped in glairy mucus. Again, the feces may be of medium consistency, but, in small masses or in the form of thin ropes.

Atonic Constipation

In a considerable number of cases, one can not speak of intestinal spasm. Neither palpitation of the abdomen nor radioscopic examination disclose the presence of a spasmodic condition. The intestinal contents move slowly along the large intestine, from the cecum to its end, and may occasionally be arrested, very likely, either in the cecum or, more often, in the sigmoid flexure, or, also, in the rectum, but, without accumulating to any extent at any certain point, as seen in cases in which the lumen of the intestine is contracted. It seems as though there were present especially a sluggishness of colonic contractions.

On palpation, the colon is not felt hard, bulging, tight or in the form of a tense rope, as in the preceding form. Rather, the colon is soft and flabby, sometimes it is thick, not dilated and ballooned, while distention through gas causes it to roll under the hands of the examiner, especially in the region of the cecum. The patient complains of distress and gas after meals and of vague abdominal discomfort and pain in the side. The pain is less severe than in the preceding form. It appears more particularly in the form of attacks of colic, to which this kind of constipation is liable to give rise.

Atonic constipation sometimes is seen in patients that otherwise are vigorous or, even, obese, but, have lost weight during the war and whose intestinal walls and abdominal girth have lost their former resistance.

We hardly ever encounter the classical type of atonic constipation that we were accustomed to see in times of peace; emaciated and debilitated patients, poorly developed, with flabby muscles, the abdomen at times protruding slightly in the hypogastric regions but showing under the influence of effort, an exaggerated protuberance of the flanks and a tendency to hernia, while the abdominal wall is flabby under palpation and there is general ptosis of the abdominal organs—these subjects were discarded in the selective-service examinations, on account of a feeble constitution. Still, they may occasionally be found among convalescents and among the men in the auxiliary service.

Constipation With Intoxication

Whether it be spasmodic or atonic in form, constipation may be complicated with symptoms of intoxication. These latter attacks occur irregularly or periodically and lead to denutrition and alteration of the general condition, at times so grave that one hardly feels justified in attributing it to the simple constipation. Nevertheless, a painstaking examination of the patient fails to disclose any other disease. The loss in strength may be so great as to render the man incapable of any service whatever and to cause him to be discharged. But, often the advisory board refuses to permit

a discharge on the plea of constipation; while the soldier, sent back to his company, drags his way from one hospital to the other. It is of interest, therefore, to be familiar with the serious forms of constipation. Here are two instances:

Two Cases of Atonic Constipation

The first, a mild case, is that of a private soldier, who, in good health before the war, for the first time had in October, 1914, an attack of gastroenteritis and, after that, experienced eight successive sudden evacuations, for the same reason. He was pale and somewhat emaciated. After meals, he complained of pain in the epigastrium and in the left hypogastrium, this lasting for two or three hours and, at times, being accompanied by regurgitation or by vomiting. He was constipated for periods of three or four days and then, either spontaneously or after a purgative, he voided feces composed of hard material with some glairy mucus or membranous shreds. During the first two days of the constipation, there was no pain, but, on the third day, he complained of malaise and of gastric pains which increased in vehemence, when vomiting set in. The ingestion of food, the patient declared, brought on pain and vomiting.

The urine during this period of constipation contained neither albumin nor glucose, nor urobilin, but, a slight decrease in the elimination of urea which may be as high as 7.6 percent.

The objective examination of the patient did not disclose an appreciable visceral lesion. The stomach was small, the liver was neither hypertrophied nor painful; the cecum was not sensitive; only the iliac colon seemed to be indurated and would roll under the fingers when palpated. Tuberculosis having been suspected in this patient, his lungs were subjected to a close examination, without, however, revealing any lesion.

The second case is that of a soldier who, after seventeen months at the front, was invalided on account of an attack of appendicitis. A second attack having occurred three months later, the patient was operated upon in September, 1916. Since that time, the patient suffered from obstinate constipation. He was emaciated, pale, had lost strength and had a cachectic appearance. Unable, for some time, to take part in the regular service, he was sent to the hospital, for observation.

The patient was a thin man (height, 1 meter, 65 cm.; weight, 50 kilograms), his face pale and ashen. He complained of obstinate constipation, of various digestive disturbances, and lack of appetite; was troubled by nausea, sometimes vomiting, and said he could not eat meat. Nevertheless, an examination of the abdominal organs did not furnish the explanation of this cachexia. The abdomen was slightly distended, its muscular walls were little resistent, the large intestine was sensitive to the touch, but, it did not seem to be thickened, and, in the region of the cicatrix of the appendectomy, there did not seem to be any serious adhesions. The liver was small and lungs and heart did not suggest any appreciable lesion; the urine did not contain any abnormal constituents.

But, the constipation was obstinate and did not yield to any of the measures employed. Daily enemas did not always cause the discharge of fecal matters, and the patient did not pass feces more than once in five to seven days, and then they consisted of very hard balls, sometimes dark-colored, then again, whitish, hard like stone and broken up only with difficulty; in a word, true coproliths. They were accompanied by a little blood and by some glairy matter and sometimes could be expelled only with considerable effort on the part of the patient, who even was obliged to remove these masses with the aid of a finger.

Radiological examination, undertaken after the ingestion of bismuth and after a bismuth enema, revealed neither constriction of the intestine nor any adhesions. The only thing discovered was a slight bend above the cecum, on the outer aspect of the ascending colon. Examination of the feces proved that the foods were well utilized, no soluble albumin or blood being present.

The evolution of the digestive troubles was almost cyclical and stood in relation to the constipation as follows: during the first days, the patient would feel fairly well and have a satisfactory appetite, there being only a general condition of malaise and a furry coating of the tongue; in the course of a few days, however, the malaise would increase and digestive troubles make their appearance, including pain, bloating, anorexia, vomiting. A uranalysis undertaken

during three consecutive days near the end of the constipation gave the following results:

		Urine Mils	Urea Gram	Amm. Gram	Urecogenic coefficient pr. 100
24 Sept.	4th day of the constipation	300	8,25	0,24	4,7
25 Sept.	Feces obtained by enema	400	16	0,28	3
26 Sept.	No feces	1,200	16,8	0,26	2

Thus the copremia resulting from the constipation is accompanied by a deranged metabolism and nutrition, as characterized by oliguria, retention of urea and a deficiency in urea elimination. At the same time, there appear in the urine some traces of urobilin, but, neither albuminuria, glycosuria nor acetonuria are present.

This deranged metabolism is the only objective symptom that I have been able to discover in my repeated examinations. It alone can afford us a reason for the failing strength of this patient, and it forced me to admit that he did not exaggerate, as there had been a tendency to assume after the first examination, but, actually was ill.

What These Two Cases Teach

As will be seen from these two instances, the toxicosis, in the course of the constipation, presents different degrees. Its beginning is insidious. For long, the patient already has experienced a condition of constipation, either moderate or severe, but, well tolerated; then, gradually, in consequence of attacks of intoxication, there occurred an alteration in the general condition. During the first two or three days of the fecal retention, a patient about to experience a toxic explosion hardly suffers and digests his food fairly well. Then malaise makes its appearance, the appetite becomes poor, the mouth bitter, a condition of nausea supervenes, vomiting either of food or of bile not infrequently takes place; sometimes there is a slight elevation of temperature, perhaps up to 38 C°, rarely attaining to 39 C°. The abdomen is bloated, slightly painful, especially on palpating the large intestine; but, these intestinal phenomena frequently are of slight import, it being the toxic syndrome that dominates the scene.

At the end of the period of constipation, the quantity of ammonia in the urine often shows an excess, and the production of urea is low, referring the effect of the intestinal intoxication to the liver. In our first specimen, it amounted to 7.6. In the second, it was increased, from 2, to 4.7. Finally, in a third case, observed since then, it was increased, from 4.4 to 8 and 8.5 at the end of a period of constipation that lasted six days. After several days, either spontaneously or in consequence of a purgative or an enema, a change takes place; the patient expells hard ball-like feces, accompanied by glairy material and membranous shreds and sometimes by a little blood. This expulsion of the feces often is accompanied by pain, is followed by a lessening of the general malaise and by a return of the appetite. However, it leaves the patient a little lower each time than he was before.

If the toxic constipation has lasted for a long time, the systemic deterioration becomes marked. The patient becomes emaciated slowly, progressively, and irremediably. Nothing will arrest it, no regimen nor medicaments aid or succeed in arresting this progressive denutrition. The skin is pale, the complexion dirty and ashen emitting, sometimes, a bad odor.

The weakness progresses and is accompanied by a permanent general malaise. Headache is almost constant. The extremities are cold, even though the forehead may be burning. There is no appetite, the tongue is dirty, the breath fetid, the liver is small. The abdomen usually is bloated, tense, painful, especially on the left, where one can clearly feel the ballooned cecum and sigmoid flexure. At other times, the abdomen is flat, the intestine soft, without resistance to the palpating fingers. The accumulated scybalæ can be felt in the sigmoid flexure, the cecum is dilated and atonic and producing splashing and gurgling sounds.

Radioscopic examination discloses that the intestinal canal is neither obstructed nor contracted; still, the passage of the contents through the large intestine is very slow.

Thus, the objective examination of the patient does not disclose in the abdomen any grave lesion that will explain the profound alteration of the general condition. It all amounts to a nutritional disturbance, the origin of which is shown to lie in an intestinal autointoxication, not only by alternating toxic attacks corresponding to periods of constipation, but, also, by abnormal chemical elements in the urine. The point to be remembered, above all, is, that

such a coprostasis will give rise to a progressive denutrition and may lead to a state of incurable cachexia.

Constipation with Irritation. Colitis and Pericolitis

Prolonged constipation produces an irritation of the intestinal mucous membrane, and leads to inflammation and colitis or which, passing even beyond the intestinal wall, may give rise to peritoneal reactions and give rise to pericolitis.

The colitis is especially frequent in the lower portion of the large intestine, where it manifests itself, although not always, by the discharge of some glairy matter tinged with blood, that adheres to the surface of the hard fecal masses. It frequently affects the iliac colon, where it may give rise to pain in the left flank and to a slight induration of the intestinal wall. When it is more severe, sigmoiditis may be manifested by false diarrhea, that is to say, by frequent defecation, repeated several times during the day, and consisting of a serous liquid of yellow or brownish color and mixed with a glairy matter, while, nevertheless, the intestine remains filled with scybalæ that are easily perceptible to the touch.

The inflammation may involve the cecum, giving rise to the symptoms of the well-known stercoral typhlitis of the older authors. These attacks are painful and accompanied by fever and are recognized by the formation of a cecal lump due to the thickening intestine being filled by accumulation of feces. Sometimes the cecal stasis is accompanied by stercoremia and toxic attacks, or, it may be initiated by symptoms of intestinal obstruction. Or, also, it may arouse peritoneal disturbances and produce a syndrome that may be mistaken for appendicitis. In the interval between the inflammatory attacks, chronic typhilitis is recognized by alternating constipation and diarrhea, the explosion of soft, pasty, glairy and fetid, badly digested feces, accompanied by a continued sensation of heaviness or of pain in the right iliac fossa while the cecum is hard, tense, and sensitive and rolls under the fingers during palpation.

The diagnosis of pericolitis is difficult. In its clinical picture, there are, outside of the constipation, only signs of peritoneal irritation, first among which is the pain. This latter is continuous, dull, increased by marching, by shaking, by traveling in a wagon, by abdominal palpation, by movements of the intestine in consequence of it. It is located in the flanks or in the iliac fossa on the right or left side, according to the predominant localization.

Most frequently, it is a perisigmoiditis or a peritonitis that one has to deal with. The irradiations, depending upon the localization of the peritoneal adhesion-bands, occur, sometimes toward the right hypogastrium, where they cause one to suspect a hepatic infection, sometimes toward the region of the spleen, sometimes toward the bladder, or the rectum.

Palpation of the abdomen causes pain. The intestine is found to be hard, thickened, tense, like a cord or like a string of chestnuts. Sometimes they contain hard lumps, which a purgative or an enema causes to disappear. Sometimes, though, that which one takes for scybalæ is nothing but the indurated and contracted intestine. In that case, purgatives and enemas do not produce any change in the appearance. Sometimes the intestinal coils seem to be agglomerated, fixed by adhesions, while induration of the peritoneum is shown by a diffuse resistance under palpation and, at the same time, by slight dullness when percussing. Finally, there are cases when palpation elicits absolutely nothing abnormal.

Very deep palpation, repeated shaking, violent purgation, in fact, everything that excites the intestinal movement is capable of inducing an attack of pain and leading to prolonged suffering. During the slow evolution of the disease, there are interspersed attacks of pain, of intestinal obstruction or of localized febrile peritonitis. Sometimes there is vomiting, often abdominal tympanitis, but, no ascites.

Radioscopic examination furnishes, in certain cases, information of great importance for the diagnosis. It makes it possible to locate exactly the seat of the pain in a given section of the colon. Sometimes it shows the coherent intestinal coils crowded in one point or in a larger segment in form of a gun-barrel, impossible to differentiate by palpation, adhesions with contiguous organs, an abnormal fixity of a portion of the large intestine and an exaggerated seam in the regions of the flexures of the colon, more rarely a contraction at a certain point or, more of-

ten, of an entire segment of the intestine, across which the bismuth advances only with difficulty, after having accumulated in its passage upward.

It is not necessary, though, always to find in the x-rays the keys to the diagnosis. Very often, this test discloses nothing abnormal, the penetrability of the intestine being sufficient and no adhesions being evident.

It is the following facts that lead to the diagnosis of pericolitis: (1) Signs of perintestinal irritation (continuous and increased pain, digestive distress without definite characterization, some induration of the peritoneum around the intestine); (2) the absence of signs of intraintestinal inflammation (feces well digested, with but little mucus and containing no soluble albumin nor blood); (3) the constipation.

The diagnosis is completed by means of an operation that shows thickening of the peritoneum in the form of a pearl-like or reddish membranous veil that envelops the gut; or also, bands of greater or less thickness that connect the intestinal coils. This diagnosis often is a very difficult one. It is not infrequent that one fails to recognize peritonitis, it being mistaken for tuberculous peritonitis; or one may even take an intestinal tuberculosis for simple pericolitis.

However, it may be asked whether tuberculosis is not capable of producing localized pericolitis in like manner as it causes dry pleurisies with adhesions; and whether the constipation is not simply the consequence of the contraction of the intestine, resulting from the pericolitis. If this is possible, it does not at all exclude the existence of pericolitis from constipation. In my experience, a long period of constipation preceded the appearance of the pericolitis, and absence of visceral lesion permitted the affirmation that the patient had a tuberculosis infection.

The Treatment

The gravity of certain forms of constipation, whether toxic or inflammatory, shows that this affection must not be neglected and that treatment must be instituted from the very beginning, before complications can develop. The preventive treatment consists, above all, in regulating the diet, which must not contain too much meat nor too much of spices, and which must consist of a suitable proportion of vegetables and of fruits rich in cellulose. Whole bread, bread made with flour rich in bran, such as we are eating at the present time, is a good antidote for constipation. Regular habits about defecation inculcated from childhood up, numerous water-closets installed in a practical manner and properly maintained count among the indispensable measures of general hygiene. As for our soldiers, it is necessary to procure for them as much as possible of vegetable foods and fruits, either dry or fresh, and to provide as many privies as possible.

The curative treatment varies according to the form of the malady. In simple constipation, it is especially the little aids that cause no irritation that must be employed. The ingestion, during meals, of agar-agar, some psyllum-seed[1] or linseed, the ingestion, during the morning-fast or at least before meals, of olive-oil or, still, better, of petrolatum. All these give excellent results.

However, everyone has his personal preferred remedy. A glass of water in the morning, fresh fruit, orange, apple or grapes at breakfast, a potato for a first meal or, maybe, the morning-cigarette or pipe. I have known one person for whom ten grains of bismuth, taken in the morning, constituted the only effective laxative.

Suppositories, enemas of hot water, or oil, or emollient substances (linseed, marshmallow) are counted among the useful harmless remedies. Hertz criticizes the glycerin-enema that is so dear to the hospitals of the Assistance Publique de Paris, but, which, according to him, is without virtue. Among the laxatives, castor-oil is most to be recommended, as being least irritant. One may use, with due precaution, podophyllin cuscutin, alum, cascara sagrada, and so forth; but, they must not be continued indefinitely, for, eventually, they irritate the intestine.

Saline purgatives, sodium sulphate, magnesium sulphate and citrate of magnesia have the disadvantage of eventually causing constipation. However, calcined magnesia and the laxative salines, when given in small doses over long periods, succeed admirably in some persons.

A teaspoonful of a mixture of equal parts of sodium sulphate, sodium citrate, and sodium bicarbonate, taken in a cupful of

[1] A seed yielding much mucilage, similar to quince-seed.

a hot infusion of couch-grass in the morning, for twenty to fifty days in succession, as a rule, gives good results.

If the spasmodic element dominates, one should attempt to quiet the intestine by means of belladonna and valerian. If, on the contrary, intestinal atony predominates, treatment with strychnine, the glycerophosphates or adrenal-extract is indicated.

In toxic constipation, a vegetarian diet must form the basis of treatment. Eggs, milk, and meat are forbidden, as these might increase the toxic symptoms. However, the physician must not be too strict about the dietetic restrictions, for fear of reducing too greatly the alimentation, and thus only make worse the constipation as well as the denutrition.

Contrariwise, in one case of this kind, I secured improvement by removing all restrictions and permitting the patient to stuff himself with food to his liking. Ordinarily, a vegetarian regimen is best, but, on condition that the patient gets sufficient vegetables and fruits for full nutrition—something hardly possible in these wartimes.

Intestinal disinfection must be secured by the alternate use of bouillon of lactic and perilactic bacilli, and of calomel, preparations of benzonaphtol, betol, and naphthol.

Hepatic extracts and biliary extracts are useful in exciting simultaneously the hepatic functions, which are slightly deranged in this form of constipation, as are also the intestinal functions.

Castor-oil and laxatives saline, in small doses, are of use. Copious intestinal flushings are employed, for the purpose of emptying the intestine mechanically and in order to disinfect it.

In inflammatory constipation, the diet must be nonirritant and not leave too much residue.

In the course of the peritonitic attacks, thick milk or vegetable soups, farinacious purees, and fruit-marmalades alone are permitted. Purgatives that irritate the intestine or provoke spasm must be employed only in moderate doses. As a rule, castor-oil is tolerated best. Lukewarm, emollient enemas, administered under slight pressure, are best for cleaning out the bowel. Hot applications on the abdomen exercise a good, calming influence.

It is in this form of inveterate constipation, when it is accompanied by progressive denutrition, that surgery must be called upon to assist. Generally, section of the peritoneal bands or of the false membranes is insufficient, for, these will form again. It is necessary to resort to enteroanastomosis that will make it possible for the feces to reestablish their regular course in the large intestine.

Is Opium the "Sheet-Anchor of Treatment"?

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THE sheet-anchor, according to the "Standard Dictionary," is "one of two anchors usually carried outside the waist of a ship and supported on shores: intended for use only in emergency." The sheet-anchor was, formerly, the largest anchor carried by a ship; but, so many special devices for anchoring a vessel have been devised that the sheet-anchor has lost its former prestige. Hence, my assertion, that "opium is the sheet-anchor of treatment," is a statement of fact; for, there is no doubt that, *as an emergency-remedy*, opium, together with its derivatives, makes the poppy the most necessary, Class A-botanic drug in existence—the sheet-anchor, "intended for use only in emergency."

Yet, this expression, so universally used by physicians, I venture to say, is understood by few of them in the sense obviously meant by the author of the phrase, which was introduced during the therapeutic period when opium was regarded as almost wholly an emergency-remedy; for, the uses and alleged uses of opium and its derivatives have been so extended that, in the view of many, these agents are not only emergency-remedies, but, are routine ones as well.

Ships still carry sheet-anchors, but, the emergencies are met in so many special

and efficient ways by modern devices that the sheet-anchor now is but little employed, except on poorly equipped vessels. And, opium still is the sheet-anchor of treatment in meeting emergencies, especially by the poorly equipped physician; for, modern technic meets *most* emergencies more efficiently than do opium and its educts and derivatives.

Data collected in this bureau, relating wholly to Pennsylvania and based upon legal records of the actual purchases of narcotics by the professional people of the state and dispensed on prescriptions, show that one-third of the physicians and dentists are responsible for ninety percent of the narcotic drugs issued through professional channels.

Opiate-Statistics for Pennsylvania

As the average annual amount of morphine per physician, counting dispensing and prescriptions both of legitimate and illegitimate character, is slightly over 2 ounces per year, the better-qualified two-thirds of the physicians are, each, credited with only 1/3 of a troy ounce per year, while the less trained one-third are, each of them, credited with nearly 6 ounces a year.

These striking facts—for, they are facts based upon actual legal reports rendered—show that the better-qualified physicians are not heavy prescribers of morphine in their respective practices; for, they employ only about ½ grain a day—a most creditable showing. When we remember that this use covers cancerous and other incurable cases, it is clear that the better two-thirds of the profession in Pennsylvania do not constitute a problem as regards morphine-addiction.

What of the other one-third that employ 90 percent of the morphine accounted for in professional channels? Their showing is: 6 ounces per physician in a year, or, nearly 8 grains a day—sixteen times as much as that prescribed by the better men.

An analysis of this one-third of the profession shows that seven out of eight of them are *not* catering to drug-addiction, but, that they are employing fairly large quantities of morphine in good faith. The record of this seven-eighths of the less-qualified men is below 6 ounces per year; it is, probably—we do not have separate figures—about 3 ounces a year, for, they are merely using morphine unwisely and are not advisedly catering to drug-addiction. More concerning these men further on.

But, the one-eighth of the less-qualified third of the profession *are catering to addiction,* more or less in bad faith. Our records here show that about 490 physicians in practice in Pennsylvania constitute our whole physician's-problem.

Now take 8 hypothetical men catering to addiction and making unwise use of morphine, the whole 8 averaging, each, 6 ounces of morphine a year, but, 7 out of the 8 averaging only 3 ounces a year (largely through unwise use) what is the one man (the eighth one) doing?

Vicious Prescribing of Opium

As the whole 8 are using a total of 48 ounces a year, but, 7 of them are using only 21 ounces of the whole, the eighth man is using the remainder, or 27 ounces a year —2¼ ounces a month, or 36 grains a day. Now, remember that there are about 490 physicians in Pennsylvania averaging that amount, or that there were during the six-months' time (February to July, inclusive, 1919,)—on which these actual records were based. Of these 490 physicians, the highest individual record was an average of 15 1/3 ounces of morphine a month, or 184 ounces in a year. Think of it!

Of course, this is the one most-extreme instance, and his case was duly attended to; while the rest range down from these figures rather rapidly, only about 150 men constituting the vicious element in the profession, out of nearly 12,000 physicians registered in the state. Only 1 vicious "dope-doctor" in 80! This speaks well for the profession at large.

It is "up to" the authorities and the overwhelmingly large reputable element in the profession to "get" these 150 men. The rest of the 490 are being rapidly "shown", and there is every hope for their reformation; but, about 150 seem to be beyond reform, and quite a large proportion of them are, themselves, drug-addicts. Quite a number of them have been apprehended by the federal and state authorities, and evidence is accumulating against many more. Some are getting out of this state.

To get the figures with regard to opium in Pennsylvania, *multiply* the morphine-figures by three. In Pennsylvania, the cocaine-menace has largely come under control; and, if the morphine-figures are *divided* by four, the cocaine-situation will be

depicted fairly accurately, so far as professional traffic is involved.

Now let us discuss the several classes of physicians instanced in what has preceded.

The Goats and the Lambs Separated

First, the capable two-thirds of the profession, or, rather, the MORE *capable* two-thirds—for, it is hard to draw a distinct line, on one side, the capable, and, on the other, the incapable. The matter is purely relative and is used here for convenience; for, in our work, we find about one-third of the Pennsylvania profession using narcotics at least unwisely, as judged by the teachings of standard textbooks, not, from any extreme or socalled propaganda point of view. We are trying to be no mere propagandists or beaureaucratic regulators, for, we are physicians and make every allowance for difficult conditions encountered in practice. We know from experience what they are.

At least two-thirds of the profession are modern practitioners, either young or keeping abreast of the times. They know the uses as well as the limitations of drugs; they have adopted modern diagnostic measures; they either do laboratory-work or have it done; they realize fully the sphere of surgery and of the specialties; they are keen to learn efficient technic; they know how to meet emergencies, or most of them, by means other than by administering narcotics; and these men regard opium, with its alkaloids, as their sheet-anchor, to be resorted to in emergencies in which other emergency-measures fail.

Those Who Prescribe Scientifically

These physicians are seeking for remedies specifically meeting definitely diagnosed pathology, whether the remedy be a drug, a serum, a vaccine or surgical intervention. But, they know that specific remedies are few, and, so, they stress case-management in the run of practice, regarding the administration of symptomatic medication as only a *part* of case-management, and, often, the least important part. They know from experience and from reading that the narcotics *cure* no condition having a definite pathology, and they regard the administration of narcotics as emergency symptomatic medication, to meet violent pain and spasm, certain surgical and traumatic emergencies, acute inflammation of serous membranes, aggravated dyspnea, cases of pneumonia and typhoid fever with talkative delirium and in which the patient simply *must* have sleep, inoperable cancer, and so on. They know that, in certain aggravated conditions, the *temporary* use of a narcotic is lifesaving, even though it is not specifically curative; and, thus, they prescribe narcotics conservatively and scientifically, ever keeping in view the associated danger of addiction. No law interferes with such practice, and these physicians no more think of supplying to a patient at one time 200 morphine pills than they do of giving an equal number of calomel tablets or aconitine granules.

When these men are consulted by, say, a "bladder-patient", they analyze the urine, employ the cystoscope, and so forth, and reach a definite diagnosis. They do not call it "cystitis" and "let it go at that", puttering with the case and finally making a drug-addict of the unrelieved patient, because the only resource they have left to them is, to give morphine or opium. But, these physicians of whom I speak are "on the job" and they *know* their work; they make of narcotics a blessing to the sick and injured, helping the poor sufferers over the hard places. May their tribe increase!

Those Reckless Prescribers

And now, what of the one-third of the profession who are using nine-tenths of the narcotics supplied through professional channels? Here is a tender spot. Yet, we must face conditions as they are, and we can not afford to ignore the sore spot once uncovered. If a ship has only a sheet-anchor, it is "up to" the master of the ship newly to equip his vessel and make it safe for his passengers. The authorities will not give him clearance-papers if his ship lacks proper anchors, while no crew would sail with him.

The pharmacists of Pennsylvania fill nearly 2½ millions of narcotic prescriptions in a year, and the physicians of the state dispense as much as the pharmacists supply on prescription. It takes the entire working-time of two clerks in this office to check up and tabulate the large numbers of reports received, that cover this matter. About one-half of the narcotics-prescriptions are for morphine, and the prescriptions average 2½ grains each.

The great proportion of these prescriptions are for persons actually ill, are issued in good faith, and very many, indeed, are perfectly legitimate; still, a very large

proportion are issued unwisely and not in accordance with the teachings of standard textbooks. Yet, the good-faith prescriptions, so far as the *total amount* of morphine called for is concerned, account for only one-half of the morphine prescribed; for, the addict-prescriptions average about 30 grains each, and such prescriptions, although relatively few in number, account for the other half of the drug-volume in the prescriptions for morphine as issued by physicians.

This is a startling fact and reveals a condition that is indefensible. Our records show that about 80 percent of addiction in Pennsylvania is caused by the unwise and illegitimate supplying of narcotics by physicians. I am exceedingly sorry to be obliged to make this statement; but, our card-files of drug-addicts are no mere approximation; for, the data are very carefully collected and as carefully checked off and tabulated, and they are based on clinical reports regarding each individual listed. This list is secret and is carefully guarded from publicity.

Consumption in Different Countries

A U. S. Government report shows the annual per-capita consumption of opium, figuring all educts and derivatives on an opium-basis, to be 3/5 of a grain in Austria, 1 grain in Italy, 2 grains in Germany, 3 grains in France, and 36 grains in the United States. Our estimate in Pennsylvania is 32 grains per capita, and our figures show two-thirds of this supplied through professional channels and the rest used in patent and proprietary remedies and smuggled and other illicit pedler-supplies. This, however, is not a fair presentation of the pedler traffic, for, a large amount collected and trafficked in by pedlers is secured by them from certain physicians and dentists, who shamelessly exploit the "easy" physician and dentist, and, occasionally, the veterinarian and nurse.

This is a serious state of affairs, showing the per-capita consumption of opium in the United States to be 17 times as great as it is in Europe; and, as about two-thirds of this opium goes through professional channels, the physicians in the United States are using in practice, legitimately and illegitimately, wisely and unwisely, 11 times as much opium per patient as are their colleagues in Europe, and, in Pennsylvania, about 10 times as much. Evidently the sheet-anchor-idea is being overworked here. I have shown, as based on the actual reports coming into this Pennsylvania bureau, that one-third—the less-competent third—of the profession is responsible for these bad figures.

I know that these figures will be called in question by some physicians; however, they have been painstakingly arrived at on the basis of *actual importations* into the United States, checking off the small exportations against smuggled supplies, and on the basis of legal reports actually received in this Pennsylvania bureau. There is a possible margin of error, but, it can not be large.

The Plight of the "Backnumbers"

Now, to discuss the less-competent one-third of the profession. Our figures show that 7 out of 8 of them are not catering purposely to drug-addiction and are prescribing in good faith, yet, often, unwisely and not in accordance with the teachings of standard textbooks. Then, why are they using narcotics unwisely and are overworking the sheet-anchor-idea?

We check over records of all narcotic prescriptions and heavy purchases by physicians, sending a form-letter which courteously asks for clinical details; and by far the larger number of these letters go to physicians over fifty years of age. A few young men do overwork the sheet-anchor-idea; not many. It is a fact in our work that nearly all of the physicians to whom we must send warnings after receiving an unsatisfactory reply to a form-letter are men fifty years of age or over, and that those requiring last-resort legal action are almost wholly men of middle or advanced age.

Men of this age received their medical educations before any narcotics-laws had been enacted; they were accustomed to entire freedom of action in prescribing as they willed, and many of them now resent what they feel to be an intrusion upon their proper prerogatives. When they were in medical school, the narcotics-menace was not stressed, and narcotics were freely sold as domestic remedies; so, it is a bit hard to impress upon these men that the matter is one that must *now* come under control. Many of them do not know how serious the menace has become.

Then, too, most of these older physicians have patients advanced in years and who have always kept the laudanum- or morphine-bottle handy for any and every occa-

sion, and now, that they can no longer purchase supplies themselves, they look to their old friend, the Doctor, to keep them supplied. There lies on my desk an illustration. A woman, aged and diseased, had her physician write for her in one month seven prescriptions, each for 1 dram of heroin; and the physician strenuously upholds her right to use, and his to prescribe, this colossal amount of this poison. She used to use other narcotics, but, liked heroin, and now consumes an amount of it that would kill many normal people. She probably will die suddenly one of these days; then, aside from the narcotics-laws, what will the coroner do about it?

Many of these older men had a poor medical education. That is not all their own fault, for, we know how defective most medical schools were only twenty years ago. So, these men, hosts of them, worthy and upright gentlemen, are physicians of small resource and do not employ modern diagnostic methods and technic and who rely almost wholly upon the use of drugs in treatment.

We must also remember that many of the older men follow the textbooks used by them in their student-days; they do not understand the modern book that outlines diagnostic methods that are entirely beyond these oldtime doctors; they find, in these old books, narcotics recommended in a host of conditions in which the modern books condemn them, as, for instance, in peritonitis, tuberculosis, and chronic diarrhea. They don't know, many of them, how to diagnose appendicitis and doubt the wisdom of its surgical treatment and, so, they prescribe morphine in its treatment. And so it goes.

Pitiable Ignorance

One can not but respect many of these men for their good qualities, their kind hearts, their devotion to their patients; and it is a fact that many of them have long struggled against adversity and have "hard sledding" generally. They are poor financially, have many obligations to meet, can not afford to take postgraduate work or renew their libraries; so, they drift along, fail to compete successfully with younger and better-equipped men, get out of touch with the medical age, and gradually drift, more and more, into giving narcotics, thus making a great many new addicts, as well as keeping up old addictions.

The very virtues of these men make them err on the narcotic side, as they are of large sympathy and readily believe the lies told them by addicts that consult them. I wish that some of these older doctors could hear what certain addicts say about them and how they "worked" the poor old gentlemen. When we write kindly letters to these physicians, giving actual facts, half the time they do not believe us.

A strange thing in these reports, that we must fairly wring from some of these good old doctors, is, that probably half of their addicts are aged people who, of course, are more or less diseased; while the other half have diseases assigned to them, probably in good faith, so far as the doctor is, himself, concerned. But, disinterested investigation shows that the "neuralgia"-diagnosis is based wholly upon the statement of the patient; that the "sciatica", "lumbago" or other diagnosis is equally flimsy; that the "female trouble," after actual examination, fails to materialize; that the "syphilis"-case is one in which the victim never received modern treatment while seriously in need of it, instead of morphine; that the "chronic-diarrhea" patient merely has the diarrhea common to addicts whose supply is irregular; that the "cancer"-cases are, many of them, not malignant trouble at all, and that the case described as "incurable" is commonly what the doctor regards as incurable addiction.

The country has many physicians who do not understand at all the modern treatment of genitourinary diseases, or even of tuberculosis. All cases of "rheumatism" look alike to them, and focal infection is to them a very vague term. They have no microscopes, do not understand laboratory-diagnosis, can not interpret an x-ray plate, never employ the Wassermann test, fail out in surgical diagnosis, never make blood-tests, can not make a modern uranalysis, can not take the blood pressure accurately, know little about the differential diagnosis of cardiac murmurs, and, withall, ridicule modern pharmacology.

And the country is also full of human wreckage whose diseases never were accurately diagnosed or effectively treated—poor creatures, many advanced in years and infirmities, who are monuments to our defective method of handling the sickness-problem and keeping the doctors and dentists abreast the age.

These are the doctors and the patients who constitute a narcotics-problem—a great

big problem hard to handle, with a certain legal side, but, a much larger *human* side. How shall we meet it, both firmly and humanely? Here, in this office, we regard it as a problem in public-health administration. We are trying to eliminate unwise prescribing, even though done in good faith; for, we realize that, while the drug-pedler-traffic is an important factor, the medical one is far greater; for, defective physicians are, in our experience, making far more drug-addicts than are the underworld and the pedlers, large though this latter menace has been and is today.

It is a slow job, for, defective doctors and the addicts have to be hand-picked and individually worked over. The prostitute and drug-pedler are a great factor in the large cities, but, the unwise and even the vicious prescriber is scattered all over the country. All of these are keeping up drug-addiction and making new addicts galore, and most of them justify themselves in their own eyes.

The Greatest Reason for Opium-Prescribing

And, perhaps, one of the greatest reasons for the large amount of narcotics prescribed by physicians is the fact that the addict is a very hard case to handle, even in a special institution. What, then, can be expected of the private practitioner who undertakes the ambulatory reduction-treatment? Some succeed; most of them do not.

A national committee of which I am a member has had drafted and introduced into Congress a bill (Senate, 2785) sponsored by Senator France, himself a physician, which aims to provide hospital-care for drug-addicts all over the union. It has met the approval of the U. S. Public Health Service and the Internal Revenue Service, and has been referred to the Committee on Public Health and National Quarantine. We hope that it will pass. If it does, the bureau with which I am connected will be in a position to stop so much sheet-anchor abuse. And it can also then be stopped all over the Union. Without this support, we are gradually stopping a vast deal of it, being as kindly and considerate as we can, but, rather firmly upholding the federal and state laws.

As regards the vicious element in the profession, fortunately small, we are inclined to show little quarter; for, we owe it to the honorable medical profession to rid it completely and finally of these degenerate doctors. Certainly, we owe it to the country at large and to humanity.

This paper, however, has to deal more with unwise prescribing of narcotics than with the legal administration. The latter is half of my work, but, I am first of all a physician. Permit me, even though it be a bit egotistic, to say a few earnest personal words of advice to my professional brethren.

The narcotics-laws, the Treasury decisions thereon, the Internal Revenue rulings, the state regulations, and so forth, really are necessary, and they do not interfere with legitimate medical practice, even if they do impose reports and annoyance upon professional people. But, the federal and state authorities are determined to shut down on narcotics-abuses as a duty to the people, including reckless prescribing by physicians. It is the duty of the profession to help in this reform.

I can not be charged with bureaucratic tendencies in this work; for, I have practiced medicine for thirty years and written three more or less useful books on materia medica and therapeutics. The writing of these books did more good to the author than they ever did to any reader, for, I believe they taught me how to use drugs without doing unnecessary damage. Added to careful study of diagnosis and case-management, the special study of materia medica taught me how to practice with the very minimum employment of narcotics. But, I keep that sheet-anchor always ready, and it is being used as a sheet-anchor is meant to be used, *exclusively in emergency;* and I do not believe that I can be charged with failure as a practitioner.

Doctor, first study diagnosis very much in detail; then study case-management, and, lastly, study intensively materia medica and therapeutics in no nihilistic way, and you not only will be a better and more flourishing practitioner, but, you will forget the sheet-anchor until after everything else has failed or the case is such that you know that these other measures must wait on morphine as the rationally indicated measure of choice.

The Management of Influenza and Pneumonia

By BERNARD T. MALOY, M. D., LaGrange, Illinois

IN PRESENTING the following method of treating influenza and pneumonia, I do so in the belief that very encouraging results may be obtained, by any physician, from such treatment, provided, he attend to the little things that have to do with the diseases under consideration; and, further, that he endeavor to keep ever in mind the great value of personal attention to the patients. During the epidemic of 1918-'19 and while with the United States Public Health Service, I attended several hundred cases of influenza and pneumonia, without a death occurring. The usual number were pregnant women, but, all recovered quickly. The doses of remedies, named below, are those for adults.

The Prompt Cleanout, Then the Antipyretic

On my first visit to the patient, I give calomel, veratrum viride, and aconite. The calomel tablet should be crushed and one-fourth grain given every half hour or hour, until the patient has taken as much as 2 to 2½ grains. If he appears very ill, I give the tablets every half hour. If he has taken another laxative before my arrival, I give the calomel, anyway. Experience has clearly demonstrated that, the better the elimination, the quicker do I obtain more favorable results. After six or eight hours, I give one or two heaping tablespoonfuls of epsom salt dissolved in a small amount of hot water and cooled. Unless the patient be very weak I make it a rule to have him sit upright during defecation. Until the saline acts freely, a good many patients may have a throbbing headache. While giving the calomel, I alternate the doses with a mixture continuing the following:

Tincturæ aconiti .....min. 30 to 36
Tincturæ veratri viridis.....drs. 2 to 2½
Aquæ destillatæ, enough to make....oz. 3
Label: Use as directed.

Give a half teaspoonful of this mixture every half hour for from six to ten doses—the number of doses depending upon the height of the pyrexia. Following these small doses, continue with teaspoonful-doses every two or three hours until the fever subsides and then lengthen the intervals between doses to six or eight hours. Continue the mixture, however, until you are certain that the fever has been checked. Be quite sure that your tinctures are made from the best fluid extracts, and from no other form of those drugs. There should occur but little, if any, precipitate.

The Control of Pain

Even though the patient complains of severe pains, I give no anodyne in the beginning, and at no time do I give an opiate for the pain. Many pains disappear after the intestine has been thoroughly emptied by the calomel and salts. If pain persists after the bowel has been cleansed of offending material, I give the following:

Phenacetini .....dr. 1
Quininæ sulphatis .....grs. 36
Capsici pulveris.....grs. 1½
Camphoræ pulveris.....grs. 2 to 4
Extracti belladonnæ pulveris....grs. 1½
Misce et fiat pulvis dividendus
in capsulas No. 18.
Label: One capsule every three hours

In almost all cases of influenza, it is advisable to give some of these capsules. In a good many cases, it is well to have this prescription refilled, continuing the capsules until the patient is convalescent. The capsules of the second box may be given from four to six hours apart. As the patient improves, I give him one capsule every six or eight hours. At the end of six or seven days, I again effect elimination with the calomel and saline.

Bridging the Crisis

During the crisis in pneumonia, I give a tablet containing nitroglycerin, digitalis, and strychnine, at first, by mouth. I dissolve one of the tablets in a teaspoonful of good brandy, to which the same quantity of sugar and water has been added. This tablet and brandy should be repeated every three or four hours if there be cyanosis or if the pulse is difficult to pick up. When the prostration is extreme, I give the tablet hypodermically every hour or two, until

the patient rallies. During this time, I endeavor to administer the brandy and sugar by pouring it slowly under the tongue while urging him to swallow. Shaking the patient or speaking loudly into his ear often will arouse him.

If the cough persists after three or four days have passed, I give an occasional dose of the following:

Codeinæ sulphatis.....gr. 1½
Ammonii chloridi.....gr. 15
Extracti glycyrrhizæ fluidi.....drs. 3
Glycerini .....oz. 1
Syrupi pruni virginianæ, enough to make .....ozs. 3

During convalescence, I prescribe:

Acidi arsenosi .....gr. ¼ to ½
Syrupi hypophosphitum, compositi.....drs. 3 to 4
Vini olei morrhuæ, to make.....ozs. 8

Label: One tablespoonful at meal time.

I prescribe the foregoing as soon as the patient begins to eat fairly well.

Hints on the Diet

For nourishment, I order, during the first two or three days, hot rich soups and broths, plenty of butter, and coffee, if desired, but, no milk alone. Milk has not agreed with the majority of my patients that have had influenza and pneumonia.

When I am sure that the pyrexia is under control, I add, to the foregoing dietary, the juice of stewed fruits and the fruit itself. I also permit small quantities of solid food to be taken, even though he have no desire for food, when it can be determined that the patient is getting better. Nourishing the patient is of the greatest importance, and the foods mentioned, given within reason, even during the first days, will cause no ill effects. I strongly urge him to eat.

Give the medicine and nourishment regularly during the night, as well as during the day, and always arouse him for it, if need be. No time may be wasted while fighting these diseases, and although sleep is very essential he should be awakened for his medicine and nourishment, anyway. I endeavor to let the patient have nourishment several times during the twenty-four hours.

The patient's position should be changed every few hours and the head and neck kept well extended. Many persons have less difficulty in breathing and they cough less while lying on the side. While in that position the constant desire to swallow with the attendant tickling of the fauces by saliva, usually followed by an exhaustive fit of coughing, is thereby eliminated to a great extent. Coughing is of little benefit to the patient, as you know, and I make it a point to impress all of them with that fact. The upper arm should be drawn back to a position of rest or used as a support to hold the shoulder back. When he perspires, I make no effort to check the sweating, although I insist upon keeping every part of his body covered, except the face; even his arms and hands should remain under cover and his back and neck should be covered when he turns to lie on one side.

I do not bathe him, change his body-garments, apply anything to the chest, or bother him in any manner until he is convalescent, except to arouse him for his medicine and food and change his position. I have found it better to have the air fresh at all times, still, always warm.

Where stoves are used, a brisk fire kept at a temperature which prevents the air from becoming chilled at any time during the day or night will help the doctor and the patient a hundredfold. Move the patient's bed into the dining room or the parlor, if necessary, in order to keep him close to heated fresh air. The ordinary bedroom is too small for a stove and in such a room it is difficult to ventilate without draughts passing directly over your patient. A warm blanket should cover the patient, and the same warm blanket should be wrapped around him when he gets up for any reason. Use no sheets or muslin gown that may chill his body. Give plenty of water to drink.

Some Practical Advice

If the patient be very ill, I make no effort to impress him with the seriousness of his condition, nor do I conceal the fact or deceive him in any manner. It is strange, though, how a patient is able to read the doctor's thoughts regardless of his words or facial expression; this is especially true, it seems, when the patient realizes that he is fighting pneumonia. I believe that frankness and firmness from the beginning inspires the patient with confidence in the doctor, and then he is more easily controlled when delirium appears.

I employ the common Shepard stethoscope with heavy tubing, and I press the bell firmly against the skin with my thumb-

nail; if the finger and thumb are used they may tend to move it or draw it away from the skin. By leaning over, I avoid touching the instrument, and I hold my breath during the time that I endeavor to locate sounds with it. This plan enables me to pick up many more sounds, and from a greater distance and more quickly, thus avoiding the annoyance to the patient of a long-drawn-out protracted examination. I use a bell with an outside diameter of about three-fourths of an inch. A larger bell bridges depressions between ribs and the finer sounds may not be heard unless the bell is in close contact with the skin at all points of its circumference. While making the examination I expose only a small part of the chest at one time.

A few words concerning the drugs that I use may not come amiss. Disregard many things found in textbooks concerning the action and dosage of veratrum viride and aconite, and use them together and in the dosage that I suggest. A careful reading of the literature on aconite and veratrum viride should make it clear that much may yet be learned about the two drugs, and that a great deal of the present day knowledge concerning them is merely conjectured. I am sure that you will be pleased and agreeably surprised at the results obtained using the two drugs combined in treating influenza and pneumonia.

Calomel has always been a very valuable drug—and one much abused. My experience leads me to the belief that those persons that are nauseated the most after taking calomel really need it the most.

Beware Pneumonia

Let me urge you to regard any moderately severe attack of influenza as a forerunner of pneumonia. Do not wait until pneumonia sets in, but, begin the outlined treatment at once. Last winter, in one town of 2,000 inhabitants, during a period of four weeks, the local physician lost nineteen pneumonia-patients, while my pneumonia-patients numbered only 6 during that same four weeks, and all recovered. This experience, together with others very similar, leads me to think that the treatment suggested above aborts many cases of pneumonia; for, it is only fair to add that, as a rule, the Government-physician attended a great many more patients during a given time than did the local physician, and he usually was called to attend those most desperately ill.

In conclusion, permit me to say that I have followed almost the same line of treatment for pneumonia as herein suggested for many years, with very few deaths to record. It is my firm belief that the combination of the two tinctures named is an excellent one and one of great value. If the suggestions offered in this paper be carefully followed, I am certain that very pleasing results will follow and the death rate of influenza and pneumonia will be greatly lowered.

The Clinical Significance of Certain Cells Found in the Urinary Sediment

By B. G. R. WILIAMS, M. D., Paris, Illinois

IT seems to me that an examination of the urine should mean something more than making two or three coarse chemical tests and a hasty search for casts; in fact, every urinalysis should be a diligent "urine" study. And, in this direction, I have particularly concerned myself with the various cells often found in the urinary sediments. For example: the physiological importance of the renal cell, forming, as it does, the ultimate unit of the secreting parenchyma, must be great, indeed. And yet upon reviewing the literature one must be struck with the lack of emphasis placed upon its discovery in a specimen.

About the time when man reaches the age of forty-five we should expect to find in his urine the occasional hyalin cast and the trace of albumin, as mentioned by Osler, and, with him, we would agree that such findings can not be taken as conclusive of nephritis. Nevertheless, the clinician talks albumin and casts, as in days of old, yet but rarely mentions the significance of the appearance of these cells,

when just a moment's reflection would impress upon him the fact that, after all, if they be present in number, free or in casts, they must be considered as proof of actual renal injury and that disease of the parenchyma exists. This must be regarded according to accepted principles, as an infallible indication of renal desquamation.

Claim has been made that only such epithelium as comes from the ducts may be identified in the urine and that those cells having their origin in the convoluted tubules, are so altered by their longer stay in the urine as to render identification highly improbable. Such an explanation is absolutely wrong, because the various cell-types may be identified many days after the sample has been voided, provided the urine has been kept sweet by preservatives.

During the lifetime of an individual, the secreting uriniferous tubule may account for but 8 drops of urine. In fact, such a tubule is very short, indeed, as compared with the remainder of the tract. In some instances, the renal cells are remarkably well preserved. Furthermore, the presence of pigmented renal cells found in bilirubinuria may be more easily explained by actual injury during secretion than by any action that might result from contact with the cuticulated types in the collecting tubules.

It has been suggested, by Fischer, that often there is an actual solution of the cement-substance (membrana propria), and the cells simply slip off into the lumina of the tubules. And, inasmuch as in some of the tubules there is as yet no damaging or stagnation of the urine, it is easy to understand how perfect secretory cells may be recovered and identified in the sediment.

Personally, I am not willing to accept the dictum that all of the nephritides are parenchymatous. I scarcely can dwell upon the ratiocinative aspects of this, except to say that, in certain cases, manifestly vascular or interstitial in type, there may occur toward the ending, veritable showers of well-preserved renal cells, even though there is not a simultaneous albuminuria and increase of casts. The most logical explanation is, that the pathological alterations of the stroma are almost completed, active inflammation has ceased, and the connective-tissue is contracting. Hence, the uninvolved or but partially diseased secretory units are mechanically pushed off and float away in the urinary current.

To find casts, we use the lower-power objectives; although for proper identification of the renal cell higher powers are best. The presence of a few cells may be determined only by centrifugalization. The cells appear singly, in groups, free or in the cast-makeup. In severe tubular nephritis (scarlatina or mercury-poisoning), the entire lining of the tubules may be shed and, when collapsed, may be mistaken for epithelial casts.

Renal Cells Under the Microscope

Often the renal cell may be remarkably well preserved; in others, by virtue of pathological changes (or artifacts resulting from ammoniacal decomposition), some difficulty may attend the recognition. By virtue of disease, it may be degenerated, necrotic or fragmented. In fermented samples or in those highly acid by virtue of concentration and so forth, the cell may be swollen or shrunken. Other urinary findings must, therefore, be taken into consideration. Often there are fatty changes, and the use of specific stains may aid in the solution of the problem.

It scarcely is necessary to state that, where the examination can not be made as soon as the specimen is voided, the specimen should be preserved by a lump of thymol or camphor. In special cases, catheterization may aid, as cells from the lower tract are eliminated.

The iris-diaphragm is properly constricted to a twilight. Stained preparations I have not found satisfactory, because the drying and concentration of the salts give rise to artifacts.

In bilirubinuria, the cells rarely appear inanimate. They may be pigmented, but, nevertheless, are highly refractive, presenting a hyaline-like appearance.

In size, the cell from the uriniferous tubule approximates that of the pus-cell—approximates, I say, since it may be somewhat larger, although, in most instances, it is more nearly the size of the erythrocyte. The larger-sized ones more likely come from the larger ducts, renal pelvis or ureter. Differentiation between the renal cell and the pus-cell (leukocyte) should not be difficult. The former rarely is

granular; the latter usually is granular. If the former be granular, Sudan III (the dye) will give an orange-color and reveal some of the minute droplets to be fatty in character.

The renal cell is mononuclear, the nucleus being, as a rule, centrally situated; the pus-cell ordinarily is polymorphonuclear (a few drops of acetic acid will bring out these figures), and these nuclei are excentrically situated. The nuclei of the pus-cell are irregular, while that of the renal cell is globular and clearcut. The renal cell has an epithelial appearance that can not be mistaken for the pus-cell. It appears as hyalin or as glass, and is quickly recognized by any one doing considerable microscopic work. The caution as to the use of higher powers should be repeated and emphasized, for, I have seen large collections of renal cells mistaken for pus. Always use a coverglass.

The term desquamative nephritis is not a good one from a clinical standpoint, simply because we have more valuable classifications for the nephritides. I have shown above that renal cells may not be found in health, but, are present or may be present, sometimes, in almost any type of nephritis. Late in interstitial disease, their prognostic meaning is not good. I do not like to find them in any specimen of urine, because we know that renal cells are not regenerated, being lost forever.

These cells appearing over considerable periods of time should give more concern than do casts. They may be present for a few days during an acute nephritis, yet, the patient manages to live many years afterward; perhaps by virtue of the fact that their neighboring cells undergo compensatory hypertrophy and take upon themselves double duty. This is the explanation where one kidney is removed and the other continues to carry on.

After Thirty Years—XX

Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

[*Concluded from November issue, page 767*].

Vitamines

WHEN the "Kronprinz Wilhelm" came to anchor in the harbor of Newport News, she was visited by numbers of health officers and experts, both national and local, all intensely interested in the strange disease that had laid low so many of her crew. The diagnoses that were offered varied, as stated in our previous article, from beri-beri, scurvy, and pellagra, to rheumatism and polyneuritis. The majority decided in favor of beri-beri due to eating polished rice, and this was the decision reported by the newspapers, although the men had eaten rice only once a week.

Mr. Alfred W. McCann, of New York, dietetic expert, maintained that the disease was neither beri-beri, pellagra nor scurvy, but an extreme acidosis, induced by a diet of acid-forming foods, lacking the vitamines and alkaline bases which are indispensable constituents of food if health is to be preserved. A condition of acidosis produces absorption of the calcium salts (and others) of the body, leaving the tissues in an abnormal condition, with greatly diminished resistance to disease. It has been found that in tuberculosis this depletion of calcium salts is particularly marked.

Mr. McCann succeeded in convincing Doctor Perenon, the ship's surgeon, of the soundness of his conclusions. At the doctor's suggestion he marked out the following plan for combating the acidosis and restoring to the depleted bodies the vitamines, bases and colloids for the want of which the men were dying:

The Prescribed Dietary

"To 100 pounds of wheat bran add 200 pounds of water. Leach for twelve hours at 120° F. Drain off the liquor and give each man eight ounces of it each morning.

"Give each man one teaspoonful of wheat bran, morning and night, until contraindicated by loose stools.

"Boil cabbage, carrots, parsnips, spinach, onions, and turnips together for two hours.

Drain off the liquor. Discard the residue. Feed the liquor as soup in generous quantities with unbuttered whole-wheat bread.

"Wash and peel potatoes. Discard the potatoes and boil the skins two hours. Give the liquor to the men to drink, four ounces a day.

"Give each man the yolks of four eggs a day in fresh, sweet, unskimmed, and unpasteurized milk, one egg-yolk every three hours with as much milk as he will drink by sipping.

"At noon, with dry whole-wheat bread, give one ounce of fresh roast beef.

"One hour before drinking milk, give juice of ripe oranges or lemon juice diluted with water, but, without sugar.

"Keep apples or apple sauce within reach of the men all the time.

"At the end of the first week, let the men eat the solids of the vegetable soup as well as the liquor.

"It is imperative that the men shall avoid all cheese, whites of eggs, butter, lard, fat of any kind, gravy, white bread, crackers, pastry, puddings, sugar, saccharine, mashed potatoes, salt meat, fish, polished rice, pearled barley, degerminated cornmeal."

It will be observed that no drugs are included in the prescription.

As to the Results

Now for the results. Let me state, in passing, that none of the officers had been stricken. Only limited amounts of fresh vegetables were found on the captured ships—little more than a taste if distributed among 500 men; so, these vegetables were reserved for the officers' table. While all the officers showed symptoms of anemia and mild acidosis, yet none of them were prostrated.

In the first four days after arrival, ten more cases of the trouble developed, making 120 in all.

On April 16, the treatment was begun. On the 17th, no new cases were reported. On the 18th, no new cases, while many of the more recent ones showed signs of improvement. The swelling of the ankles began to subside in eighteen cases, and the pain on pressure over the nerves was not so acute.

April 19, four men were so much improved that Doctor Perenon permitted them to go on deck. Many others showed signs of improvement.

April 20, fourteen men were able to leave the ship's hospital, and return to their bunks.

April 21, eight men were dismissed from the hospital, and the next day eight more.

April 23, four more cases were pronounced out of danger.

April 24, seven more left the hospital, and Doctor Perenon reported: "The treatment is working miracles. Even the worst cases seem a little better and one of the paralyzed men can now stand on his feet without help. We have only 75 cases today, and 47 are so far advanced that we can safely say that they are cured."

Regarding his experience at sea he said: "We had many cases of pneumonia, pleurisy, and rheumatism among the men. They seemed to lose all resistance before the epidemic broke out. We had superficial wounds and cuts to deal with. They usually refused to heal for a long time. We had much hemorrhage. There were a number of accidents aboard, such as, fractures and dislocations. The broken bones were slow to mend. Nature was not doing her duty."

The same day, Doctor Perenon was forbidden by his superiors to make any further public statements but I am credibly informed that all the crew recovered. It would be interesting to know whether they showed more than the usual tendency to tuberculosis, later on, since tuberculous patients generally show a deficiency of lime salts.

The Lesson

The most important lesson to be drawn from this striking episode is this: *That the foods which we have been accustomed to regard as wholesome and nourishing, may be, and at the present day are, so prepared as to become a menace to health instead of maintaining it at high efficiency.* The vitamines, bases and colloids necessary to preserve health have been largely processed out of them. Fresh meat, bread, butter and potatoes are generally assumed to be life-sustaining foods. And so they are if in their natural condition. Meat loses much of its value if the alkaline bases in it are destroyed by overcooking. White bread has lost most of its best constituents by the removal of the germ and the bran, which contain the bases and colloids needed by the system. Butter would be a good food if it had been made by the old-fashioned process of churning sour cream; but,

nearly all the butter on the market has been deprived of its antiscorbutic properties by alkalizing and pasteurizing the cream from which it was made, and the resulting buttermilk is equally devitalized as a food. Yet, natural buttermilk is an excellent antiscorbutic. The vitamines in potatoes are found just under the skin, and when they are peeled in the usual manner the most valuable part is thrown away, the remainder, which is chiefly starch, being eaten.

In fact, almost every article of manufactured food today has been commercially manipulated and processed, either on the claim that it would not keep otherwise or for reasons of greater profit, until its food value has been seriously impaired or destroyed altogether.

The food upon which the crew of the "Kronprinz Wilhelm" lived, and which nearly cost them their lives, was the same as that which is generally eaten by the majority of the people of this country, with the one exception that it contained no fresh fruits and vegetables. The only reason why our population do not suffer in the same way, is that they eat in addition a certain amount of fresh fruits and vegetables which partially counteract the effects of the acid-forming foods that form the bulk of their diet. But, although we do not see such wholesale evidence of acidosis among the people, nevertheless they do suffer from acidosis to an extent that is serious, and all the more serious because it is seldom recognized as the cause of much rheumatism, neuralgia, neuritis, anemia and even tuberculosis. Most of the tissues of the body suffer when the calcium salts are dissolved out by a condition of acidosis. Muscles, nerves, ligaments, cartilages, all show a tendency to increased vascularity, accompanied by pain, tenderness, atrophy, and effusion into the joints.

The future of the race is involved because the acid-forming foods have a pernicious influence upon both the pregnant mother and the growing child. Children are born with enfeebled constitutions because their mothers were not properly fed, and, as they grow up, they suffer from the same diet of food that does not give them resistance to disease.

The Remedy

The reason, why so much of our food has been deprived of its most important properties, is twofold: Namely, commercial greed and popular ignorance. The people demand *refined* foods; therefore, the manufacturers give them what they ask for, although it involves removing some of the most important ingredients. The manufacturers, also, in order to make foods keep longer, submit them to processes that make them less wholesome and even, in some cases, positively injurious. People want their bread to look white, so, the bran is removed. The miller claims that flour will not keep if the germ of the wheat is left in it; hence, between the two, bread as commonly eaten is a very poor food. In buying ham or bacon, many housekeepers insist on getting "mild cure", ignoring the fact that there is no *wholesome* substitute for the old-fashioned way of curing meat by means of salt and wood-smoke. The packer gives them what they ask for, with the result that much of the ham and bacon sold is unfit for human food. Some kinds of canned foods are devitalized by the extreme heat example, tomatoes, after being canned, are placed in a retort under high-pressure steam because they are hard to sterilize so that they will keep. Then, too, the acids in many fruits and vegetables attack the tin and iron of the cans causing the food to be more or less saturated with mineral salts and, thus, throwing extra work upon the kidneys. This is especially unfortunate in the case of the tomato because of its cheapness. It is to be hoped that some way of preserving it may be found that will not destroy its vitamines and will keep it free from mineral contamination from the can; for, in its natural state, it is an excellent antiscorbutic.

Fresh fruits and vegetables should be preferred whenever possible, yet, certain ones are fairly good when they are canned right.

Among the foods rich in vitamines are the following: Spinach, asparagus, cauliflower, lettuce, beets, cabbage, turnips, carrots, radishes, pumpkins, rhubarb, onions, string beans, lima beans, peas, celery, cucumbers, parsnips, dandelion, lentils, egg-plant, baked potatoes (in their skins), oranges, lemons, pineapples, strawberries, blackberries, raspberries, currants, blueberries, cranberries, apples, pears, peaches, plums, apricots, grapes, cherries, figs, dates, raisins, cantaloupe, watermelon, oatmeal, whole wheat, shredded wheat, peanuts, chestnuts, wal-

nuts, natural brown rice, milk (natural state), buttermilk.

Of course, it must be borne in mind that not all of these foods are good for everybody. Many of them would disagree with certain individuals, and each person must be guided by his own experience. The list is simply selective. Further, it should be remembered that, on boiling vegetables, the vitamines are lost to a great extent if the water in which they are boiled is thrown away. As far as practicable, it should be utilized for making soups, gravies and sauces.

Canned goods are in no respect quite equal to the fresh article and some varieties had better be avoided entirely. The better kinds are a great boon in carrying us through the season when the fresh article is not obtainable and in enabling us to enjoy the products of distant parts of the world that could not be transported long distances in their natural state. If glass containers were universally practicable, the situation would be ideal; however, there are certain fruits and vegetables that should never be canned in tin because of the action of their acids upon the metal base.

Mr. McCann's investigations lead to the conclusion that the foods most prone to be contaminated with salts of tin and iron to a serious degree are the following: rhubarb, pumpkin, beets, and fish to which vinegar has been added. Among those which show moderate contamination from the metal can are: apple-butter, asparagus, red sour cherries, strawberries, blackberries, gooseberries, raspberries, cranberries, stringbeans.

Among those comparatively free from metallic contamination are: apples, apricots, lima beans, sauerkraut, sardines in oil, pineapple, spinach, tuna, pears, peaches, white cherries, black cherries, peas, ripe olives, hominy, corn.

No doubt, also, the longer canned foods have been kept, the greater is the liability to contamination, so that all the above mentioned foods would be quite safe in glass or lacquered tin.

No one can say to what extent devitalized foods are responsible for the increase in the prevalence of organic heart disease, hardening of the arteries, high blood pressure, cancer, diabetes, nephritis, and tuberculosis, but, those who have given the subject most study are agreed that the prevalence of these diseases is mainly due to this cause. The high deathrate among children also is no doubt due largely to the same cause. The public needs waking up to the idea *that the foods they chiefly eat are not what they suppose them to be, but that they have been robbed of their most vital ingredients.*

It is a pleasure to give credit to the National Canner's Association for the excellent work done by its members throughout the country, and to its Washington laboratory for improving the general quality of all canned goods. This oasis of intelligent self-interest in a desert of commercial greed is worthy of all praise.

While, no doubt, some legislation on the subject is needed, and while, perhaps, some that we have, needs to be repealed, still, after all, the one great need is, to educate the public. As we have seen, many foods are sold in a certain condition because the people in their ignorance demand them in that condition. Teaching the public is a slow process, but, it can be done by persistence in presenting sound ideas through the press, through lectures, and through the personal teaching of the family physician. In the long run, the people get what they demand.

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The Scope of Antigen (Vaccine) Therapy

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I WISH to maintain the thesis that there is no department of medical science that can afford to ignore the antigen-treatment, and to illustrate my contention by the description of cases successfully treated. In making such an assertion, I am much less modest than Sir A. Wright, who acknowledges want of success in cases with fever and in chronic infections. I assert that antigens are just as useful in such conditions as in any other of this class; although I acknowledge that in cases with chronic fever the desired result often can be more rapidly attained by a combination of immuno- and chemotherapy.

One is often asked how it is possible to cure acute generalized infections by means of injecting more of the causative poison. As to the fact, there can be no question. In these acute infections, one gets one's most dramatic results. Success or failure depends upon the condition of the patient's endothelial cells, those jealous guardians of the tissues. If these are, for the most part, intact, then the patient has tissues capable of being stimulated; if they are not, as in the hemorrhagic types of infections, no such response can be expected or obtained.

The Meaning of Antigen

Before describing these cases, it is necessary to discuss some points about the method, since there is a tremendous lot of unscientific work being done under the guise of scientific procedure. It will be noticed that I have substituted, in the title of this paper, the term antigen for vaccine. I have done this, because antigen describes exactly what the method is; namely: the production of antibodies in the patient; while the term vaccine, quite suitably applied to smallpox-antigen—gives people the idea that therapeutic immunization in general is similar in method and involves, for instance, the production of an ulcerating sore.

On Antigen Action

It may be stated at once that the number of different antigens to which the animal body is capable of responding at the self-same time is large. This is fortunate, since the animal body is constantly infected simultaneously with a number of microbes. The body responds to the stimulus by producing antibodies, the most important one of which is, a specific ferment that enables the cells of the body to ingest and digest the invading microbes (this ferment is variously called immune-body, amboceptor or coferment); and an antiferment, called an titoxin, to neutralize the microbial ferment or toxin. It is important to remember that these antibodies are absolutely specific for the given microbial antigen, and the production of them in sufficient quantity (which varies with the case) is absolutely essential for the success of the method.

In the original experiment of Wright and Douglas, these specific antibodies were ignored and the dosage was founded on the quantity of the fluctuating and, at best, feebly specific, heat-labile opsonin, or complement, found by the opsonic-index experiment.

This has been one of the most potent causes of the method getting into disrepute, since a low dosage will keep the opsonic index high, but, will be quite insufficient to produce enough of specific antibodies to cure the patient in the majority of cases. I often have cured cases in which the method has been said to have failed.

Again, if the essential antibodies are specific for a given antigen, it is obvious that, in treating a patient, the antigen must contain all the microbes that are attacking the patient; for, nearly all infections rapidly become mixed. As I have many times said before, the inclusion of an unessential microbe will do no harm in an antigen, while the exclusion of an essential microbe will lead to failure. I need not further argue the case, for, the use of mixed antigens, the necessity for using them, is now generally recognized; but, I must say something about stock antigens.

About Stock Antigens

It is often suggested to me, and, the idea seems to be widespread and will be con-

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firmed by recent statements made by Sir A. Wright, that there is a nonspecific action of antigen; in other words, that it does not greatly matter what antigen is used. This position is quite untenable. How complete the specificity of these antibodies is, is demonstrated by the fact that, in passive immunization, the serum against one strain of pneumococcus is quite ineffective against another strain. And so with other sera, for example antimeningococcic serum.

Further, if this contention were correct, the stock-staphylococcus and streptococcus-antigen made in huge quantities for the treatment of war-wounds would have been a great success, instead of getting antigen-therapy into disrepute. It is unpleasant to contemplate the numbers of limbs and lives that have been lost because of failure to use this very potent adjuvant method for the treatment of war-wounds on a proper scale.

Then, again, were nonspecific action effective, immunization against the typhoid-bacillus ought to protect against the paratyphoids; but, this it does not do. What does happen is, that, if the immunizing mechanism for a given antigen is present, a dose of another antigen will mobilize a quantity of the antibody to this. For instance, a dose of paratyphoid-antigen will produce a flood of agglutinin to the typhoid-bacillus, but, only in a typhoid-immunized animal. There are certain emergencies, such as pneumonia and puerperal fever, where it is essential to try a stock antigen pending the making of an autogenous one, but, in these conditions, the probable cause is known. So, too, in boils and gonorrhea. But, it is not justifiable to use a stock antigen for a condition in which the bacteriology is not known. Boils are not always caused by staphylococci: gonorrhea is always a mixed infection and the accompanying infections vary.

The stock antigens commercially obtainable often are impotent, being made from old laboratory-strains that have lost their virulence. A few months ago, I was informed by an entirely reliable person that he had known water made slightly opalescent with milk to be sent out for an antigen.

So important is it that these antigens should be autogenous, that the medical construction-schemes at present before this country provide for large laboratories throughout the country, an important part of whose functions will be the making of them, so that they may be available for the whole community.

About Dosage and Intervals

The proper intervals between doses is a puzzle to many. The intervals depend on the reactions. These reactions are manifestations of the negative phase, a period after inoculation, when the resistance of the patient is lowered. The reaction is classified into *local*, indicated by tenderness and perhaps swelling and redness at the site of infection; *general*, as shown by malaise, rise of temperature and pulse; and *focal*, indicated by increase of symptoms at the site of the infection, as, for example, diarrhea in the case of intestinal infection, increased cough and sputum in lung-infections, increased pain in an infected joint or nerve.

These reactions generally come on within twenty-four hours, although sometimes delayed for thirty-six; very rarely do they occur after the lapse of forty-eight hours So that, if one uses the following simple rules, one rarely fails to space the doses properly.

In acute cases, the reaction is demonstrated by temperature and pulse. If the temperature remains unaltered, the next dose may be given in from thirty-six to forty-eight hours. If it fails, the next dose may be given when the temperature begins to rise again. If it rises, one must wait until it falls again, before repeating the dose. In chronic cases, if there is no reaction, focal or general, the next dose may be given in three days; if a reaction occurs, as shown by malaise and increase of focal symptoms, the next dose ought not to be given inside of three days after all signs of it have disappeared. If there is any doubt as to whether a reaction has passed off or not, leave a few days longer interval rather than risk giving a dose during a negative phase.

It has recently been popular to assert that there is no such thing as a negative phase. No one making such an assertion could have had any practical experience with this method. If the reaction (negative phase) is unduly severe or prolonged, it can be controlled and cut short by administering iodine. I use, for this purpose, a mixture of iodine, menthol, and radium in almond-oil, and it is very efficient.

As I have often pointed out before, the idea is founded upon the observations that iodine destroys the toxic properties, but, not, the antigenic properties of microbial toxins. The dosage varies with the case. In acute cases, for instance, puerperal fever caused by streptococci or in influenza, a few small doses, say, 2½, 5, 7½, 10 million of the causative antigen, is all that is necessary; in chronic cases, such as chronic staphylococcic eczema or boils, very large doses, as much as 30,000 million or more may have to be used.

In such conditions as rheumatism, where one may be using one antigen containing staphylococci, streptococci, and colon-bacilli it is not safe to stop before attaining a dose of 5,000+500+500 million, respectively.

Essentials for Success

Lastly, if the patient is to make antibodies effectively and if they are to act properly in his body, the latter must be got into as good a physiological condition as possible. The hydrogen-ion concentration of the blood and tissue-juices must be normal. Insufficient secretion of his hormonogenic glands must be replaced, distressing symptoms, such as pain and cough, must be relieved. In wounds, proper drainage must be insured. Methods for determining the antibodies to the focus of infection must be used. The oxygen-carrying apparatus must be efficient, and so on. This is all common sense, but, the therapeutic immunizator is supposed to think his methods so potent that the exercise of such methods is beneath his dignity.

On the other hand, I want to emphasize that, in the cases that I am about to describe, such methods, alone, had entirely failed to cure the conditions that at last were brought to a successful issue by immunization. To sum up, it is essential for success that

1. The antigen should be specific and complete.
2. The doses should be given at proper intervals.
3. Sufficient antibodies should be made by attaining to a sufficient dose.
4. The physiological condition of the patient should be restored as far as possible by appropriate methods.

Cases from Practice

I shall now proceed to illustrate my contentions by briefly describing cases of general infection: infections of brain, eye, ear, skin, respiratory, gastrointestinal, urinary, genital, glandular, and of connective-tissue.

I ask you to remember that many of these patients were either in acute danger of their lives or had had the most skilled possible ordinary treatment, some of them for many years. You can then judge as to whether the recoveries were the result of the treatment or, whether, by some extraordinary coincidence, they happened to occur after it.

The first case that I shall relate is to illustrate the efficacy of the method in an acute general infection of the utmost severity.

Infection of knee-joint.—Constable G., aged about 40, slipped and fell while ascending a mountain on July 28, 1912, and grazed his left knee. A few hours later, his leg began to swell and, by the next day it was of enormous size and he was acutely ill. He arrived at Doctor Steevens' Hospital on the evening of the 30th of July, when his leg and thigh were extensively incised. I was requested to see him the next morning.

He then was delirious. His temperature was 102.8° F., and his pulse ran 110. The swelling extended up to and upon his abdomen. I isolated streptococci in pure culture from one of his wounds and made an antigen. He was given his first dose on the morning of August 3d. He was delirious still. He appeared somewhat better the next morning. The dose was repeated on August 6 and a dose of iodine-menthol-radium was given with it. His temperature came down steadily until August 8, when it was normal. It began to rise again on August 11 and there was increased discharge from the wounds. I gave him 7½ million on the 12th, but the temperature did not come down as I expected and, so, I made a fresh culture, and isolated a colon-bacillus. From this colon bacillus, also, an antigen was prepared, and, after the first dose, combining it with the streptococcus-antigen, the desired effect was observed to follow. Recovery proceeded uninterruptedly.

Infections of the brain and spinal cord, from the point of view of therapeutic immunization, are largely unexplored territory. I have, within the last few months, isolated a staphyloccus from the cerebro-

spinal fluid in a case of advanced disseminated sclerosis. The condition of the man certainly has greatly improved from an autogenous antigen; but, only amelioration could be expected in such a condition. I mention it, because, if the man had been treated earlier, there might have been some hope of permanent arrest.

The following two cases, the first acute, the second chronic, appeared to be *infections of the brain tissue*. One Mr. B., a medical student, had had, for some days, a temperature of 100° to 102° F. before he took to his bed. He then began to see double. He became delirious and had hallucinations; but, when spoken to, would rouse up and talk fairly sensibly. The conjunctivæ were congested; he was badly constipated and wetted his bed; he had, in short, all the symptoms of lethargic encephalitis.

On the chance that the infection might be caused by the influenza-bacillus, I gave him 2½ million influenza-antigen; the improvement was immediate. I followed this up with 5 and then 7½ million, after which his mind was normal, although his memory still was somewhat defective. However, his temperature was still 99° F. I then gave him 10 million; that night, his delirium returned in full intensity, although he had no further rise in temperature. He did not become quite normal mentally for two days. This focal reaction made it quite certain that the influenza-bacillus was infecting his brain.

The chronic case was that of a man aged about 35, a patient of Doctor Neary's. I first saw him in April, 1918. He had been suffering from *epilepsy* for seven months. There was a history of rheumatic fever in 1915, 1916, and 1917, and he had a mitral systolic murmur. He was having two or more fits a week, and his wife noticed a "roaring of wind" in his abdomen before these fits came on; also twitching of his right hand. He had been kept under the influence of bromides, but, the attacks persisted.

He had marked pyorrhea and the symptoms of intestinal indigestion. I thought it worth while to try a mixed antigen, on the chance that it might be a rheumatic infection of his brain. The microbes were staphylococci, diphtheroids and colon-bacilli. The initial dose was, 10 million staphylococci and 1 million, each, of the others. This dosage was continued up to 5,000+500+500 million. The fits gradually became less frequent and finally ceased. He had one relapse a few weeks after, but, has kept well since then.

This is the only case of epilepsy that I have had the chance of trying; but, it seems to me quite likely that at least some of the cases of epilepsy occurring in childhood may be some chronic infection of the brain. In this connection, I have had one case of severe *chorea* (which I first saw in March, 1917) accompanied by swollen glands in the neck and pain in the left knee and shoulder, besides signs of intestinal indigestion, with the temperature going to nearly 100° F. This patient was very successfully treated with mixed catarrh-antigen, containing micrococci, M. catarrhalis and streptococci from her postnasal catarrh and coliform bacilli. The initial dose was 1 million+1+1, which had to be repeated three times, owing to the reaction before the next dose of 2+2+2 could be given. The final dose was 100+100+100. She remains perfectly well and robust.

I do not intend to describe any case of intraocular infection, because I have not had sufficient opportunity to draw any definite conclusions as to the efficacy of the method. I may mention, though, that I have had two cases of *iritis*, one a case of mixed ordinary and gonorrheal *rheumatism*, and one a case of *chronic eczema*, with acute exacerbations. This I shall mention later. Both patients recovered under treatment. Two cases of *granular ophthalmia* I will describe briefly.

The first case was one of very advanced granular ophthalmia with pannus, in a man in his early twenties, whom I first saw about eight years ago. The opacity was such that he could not read at all with one eye and barely with the other. He had been under treatment by eye-specialists for years. I isolated staphylococcus aureus from his conjunctival sac and inoculated him with an antigen made from it, beginning with a dose of 100 million. His final dose was 20,000 million. His eyes cleared up completely, with the exception of a very slight corneal opacity in one eye, but which hardly interfered with vision, and his eyelashes grew again.

A few months ago, I saw, with Doctor Lynn, a small, miserable, slum child about

2 years old, emaciated, with a discharge from its right ear and a most marked patch of granular ophthalmia under its left upper lid. From the latter, staphylococcus aureus was isolated. The initial dose was 25 million. The patch disappeared completely in a few weeks, as did the ear discharge, after a course with a special antigen made from the discharge.

I am not prepared to assert that granular ophthalmia is caused by the staphylococcus aureus; still, I think that these two cases suggest that further investigations along this line would be worth while.

I now shall describe two cases of *infection of the ear*, since, between them, they comprise infection of the internal ear, the middle-ear, and the external auditory meatus. I may state that ear-infections respond very readily to this method. I can not recall a case of discharge that did not yield to it.

Mr. T. A., aged about 50, an organist, had been gradually becoming deaf and had, during the few months before I saw him, in February, 1918, had many severe attacks of vertigo. He had consulted two specialists, who had assured him that nothing could be done for him. I found that he had postnasal catarrh and also pyorrhea. From the former, I isolated staphylococci and streptococcus viridans. The initial dose of the mixed antigen given was 25 million plus 2½ million. At first, he had focal and general reactions, with increase of the vertigo, but, the latter gradually ceased. His final dose was 2,000 plus 100. His hearing now is greatly improved. He has lost his postnasal catarrh and has no trace of Menière's symptoms.

Mr. B., aged 54, had had a discharge from his left ear for twenty years. All this time, he had been under the most skilled care. His ear drum was quite invisible, owing to the passage being almost closed, at the junction of the bony and cartilagenous meatus, by exostosis and granulation-tissue. It was with great difficulty that a small opening could be maintained. It sometimes became blocked, and then the pain became agonizing. As it was, he had periodic attacks of most intense pain and could sleep only on his back, with his head kept carefully in the mid-position; turning on either side causing the pain to become more severe.

I isolated staphylococcus albus, a short Gram-negative bacillus and streptococci from the discharge. The first dose was 25 million staphylococci, plus 1¼ million Gram-negative bacilli plus 1¼ million streptococci. He had, at first, very marked focal reactions, which were controlled with iodine-menthol-radium. The first dose was given in August, 1917. The last dose of 5,000 million+250 million+250 million was given on January 17, 1919. The discharge had at that time entirely ceased, the exostosis and granulation-tissue had entirely disappeared, and the sclerosed and retracted drum could be clearly seen. He had no pain. He was, of couse, completely deaf in that ear.

Skin infections of various kind respond most satisfactorily to this treatment. I will relate only one very chronic and severe case.

A lady of between 30 and 40 consulted me in October, 1913. She came into my consulting-room with a thick veil, to hide her swollen face, and blue glasses, because of severe photophobia from intraocular infection. She had the eczema also all over her arms and in other places on her body. She had had the infection since the age of 14. The acute exacerbations occurred especially in the spring and summer. She had pyorrhea around her lower front teeth, all the rest were gone. She was very constipated.

I isolated staphylococcus aureus from her skin, micrococcus catarrhalis and streptococci from her pyorrhea, and colon-bacilli from her feces. The first dose given was 25 million staphylococci, 1 million mixed micrococcus catarrhalis and streptococci, and 1 million bacillus coli. Her final dose of staphylococcus, given on the 17th of March, 1914, was 3,000 million, and of the other microbes, 75 million. She had then lost every trace of the eczema, her pyorrhea had disappeared, and she no longer was constipated. She remains perfectly well.

As *postnasal catarrh* is one of the most difficult of the respiratory infections to deal with, I chose that as a type.

Rev. Dr. C. consulted me in June, 1912. He had suffered from postnasal catarrh for years and had had much local treatment, without getting relief. I isolated large Gram-positive cocci and streptococci. The first dose given him was 10 million of the large coccus and 5 million of the streptococcus. It was a larger initial dose than I now administer, and there occurred a rather

severe focal reaction. The patient's final dose was 300 million+300 million. He has remained perfectly well. His pyorrhea healed, too.

In General

I could relate numerous cases of acute and chronic respiratory infections successfully treated, were it necessary to do so for my purpose; as it is, I have often stated that there is no necessity for any respiratory infection ever to become chronic. Recent infections are very easily cured with autogenous antigens.

Pyorrhea alveolaris shares with postnasal catarrh and chronic tonsillitis the responsibility for the infection of the gastrointestinal tract, and the latter two are common sites of the entrance of microbes into the interior of the body. Consequently the prophylaxis of many incurable conditions, such as endocarditis, lies in getting rid of these infections.

In some cases of pyorrhea, the organisms of Vincent's angina, that remarkable symbiosis of the bacillus fusiformis and of spirochetes, are associated with microbes in the pathogenesis of the disease. When this is the case, organic-arsenic preparations must be used to kill them.

I have already mentioned the healing of the gums in cases described above, therefore, I here shall describe only one case. The most common microbes are, micrococcus catarrhalis and streptococci.

Miss C. consulted me in April, 1912, having well-marked pyorrhea. I isolated micrococcus catarrhalis and streptococci. The initial dose given was, 2½ million of micrococcus catarrhalis and 2½ million of streptococci. The final dose was, 250 million of each. I saw her a short time ago. Her gums remain quite well. I think, though, that it would have been safer to have gone on to 500 million of each.

As I have already stated, under infections of the whole or of various parts of the gastrointestinal tract, one nearly always finds a source of infection either in the nose, tonsils or gums. These germs are swallowed and thus infect the stomach or, passing on, lower the resistance of the intestine to the bacillus coli, which then becomes pathogenic.

Miss K., aged 25, consulted me in April, 1917, complaining of severe *indigestion and constipation,* and an abnormal amount of gas from the bowel. I isolated large Gram-positive cocci and streptococci from her pyorrhea and bacillus coli from her feces. The initial dose was 5 million large Gram-positive cocci, 2½ million streptococci, and 2½ million colon-bacilli. Her final dose was 200+100+100 million, respectively.

Her weight was 6 stones 7¾ pounds when I began on 20 April, and was 8 stones 1½ pounds in June when she had the last dose. The final dose was not high enough. She remained quite well for eighteen months and then had a slight relapse. A course of similar treatment then restored her. It is not safe to stop under 500 million of these antigens.

I have had two very successful cases of *duodenal ulcer* treated in this way. There was no doubt about the first one, because the man had been operated upon twice. He has had no symptoms since being treated with antigens.

A case of an elderly gentleman, which I saw in consultation with Doctor Cook a few months ago, Mr. C., is of peculiar interest, as it was feared that he was suffering from malignant disease of his liver. When I saw him, he had an elevated temperature, he was very weak, deeply jaundiced, and had fatty stools. I thought that at any rate, there was a chance that it was a duodenal infection spreading up and blocking the bile-duct. I made an antigen from his pyorrhea and from his stools, the initial dose being 2½ million of streptococci and 82½ million of colon bacilli. The final dose was 500+500 million of each. He improved from the beginning and is quite well now.

I shall decribe only two further cases, one was that of an elderly lady, whose life had, for years, been made miserable by the continuous passing, from her bowel, of large quantities of foul gas. It was so bad that she said her house smelled like a sewer. I made an antigen from her bacillus coli, beginning with a dose of 2½ million and gradually increasing to 2,000 million. She gradually got well and has remained so.

[*To be concluded.*]

What Others are Doing

SOME REMARKS ON THE NATURE AND THE ETIOLOGY OF SPANISH INFLUENZA

A remarkably instructive study of his observations during the "Spanish-influenza" epidemic in Pietermaritzburg (South Africa) is contributed by Dr. Alexander Edington to the *Lancet* for October 25. Doctor Edington contrasts the enormous mortality of the "Spanish-influenza" epidemic with the much lower one of the 1889 epidemic, seeing in this contrast reason for grave doubt as to whether this high mortality was actually attributable to influenza or to some other more malignant infection. If it was a new disease, he asks, what are its characteristics, or if not, is it a recrudescence of some malady that has lain dormant for some generations?

The main symptoms of this last epidemic are enumerated as follows:

1. Malaise, headache, and pains in the body. In the fatal cases, pains extending down the whole length of the back have been common.

2. The temperature usually has risen rapidly, but there has rarely been a true hyperpyrexia. Where this has occurred it usually has been within the first few days and was due to true influenza. But, in certain fatal cases, the temperature fell about the fourth or fifth day and rose again about the fifth or sixth day, then presenting a very different curve. He considers that in such cases the first curve was that of true influenza arising after a short period of incubation, and that the second curve arose after a longer incubation and was due to an unknown factor.

3. The pulse rises with the fever, but, during the curve of the second stage, there is a very definite rise in blood pressure, and the pulse is hard and bounding.

4. Following upon the rise in blood pressure, there frequently is noted a short, explosive cough when gelatinous masses of mucus, and sometimes clots of blood, are forcibly ejected. In one case, there was an actual rupture of a blood-vessel attended with profuse hemorrhage.

5. The delirium comes on about the third night, and is not severe at first; the patient can be roused into a lucid interval; but, after about 48 hours, the delirium is much more severe, and lucid intervals are rarer. Eventually, it is of a violent character and there is difficulty in keeping the patients in bed.

6. In the cases that went on to a fatal termination, there has been, usually, an active absence of any definite pathological symptoms in the lungs until crackling sounds are heard. This symptom commonly comes on very late in the illness and foreshadows death. The sound is very peculiar and is such as one might expect if the lungs had been removed and the thorax packed with dry, crushed paper. But, even after this crackling has been manifested for some time, there is little or no alteration in the percussion note.

7. The last symptom is one of the most serious import, namely, the blackening of the nails and the dusky hue of the face. This has been, commonly, the forerunner of death and is so characteristic that lay persons have taken notice of it.

As for the bacteriology of the disease, Doctor Edington relates that examinations of the second sputa of the delirious patients showed in some cases the presence of bacilli of the plague type, though not absolutely typical; the bipolar staining being not so clearly nor so sharply defined as in plague. The injection of a few drops of such a sputum into the subcutaneous tissue of a guinea-pig led to death in six days, the animal not showing any illness until the day previous to its death. Doctor Edington made further bacteriological investigations following up the lead mentioned in the foregoing, but, which are too detailed to lend themselves to abstracting. Suffice it to say that the

similarity, to the bacilli of bubonic plague, of microorganisms found in patients with "Spanish influenza," was rather insistent and that these bacteria evidently were very virulent for guinea pigs.

Nevertheless, it can not be declared definitely that this microorganism actually is the cause of the disease, no matter how suggestive may be the findings. However that may be, the disease induced by this microorganism is a definite infective disease with high virulence and which probably accounted for most of the death rate of the socalled influenza. The cases can be diagnosed very soon after admission, in some cases, especially if there are no lung symptoms and the temperature is not over 104°, and if the nervous condition is well marked. Cases in which a moderately high temperature remains high for 48 hours without lung symptoms, are to be regarded with suspicion.

The disease would seem to be one affecting the cerebrospinal nervous system, and to be more irritative than inflammatory. Pulmonary and other conditions that may supervene might be regarded only as complications, arising from the disorganization of the nervous system.

ABOUT FACE MASKS

The mask used by the profession as a practical measure of prevention aginst the infection of influenza is worth as much, perhaps, as the eating of onions, the wearing of asafetida about the neck, the many arts and schisms resorted to on the part of many cults and religious sects. The writer does not wish to go on record against the use of the mask as a preventive measure against the spread of the infection of influenza, but, as a practical prophylactic measure, he would have as much faith in the one commonly used as that cited by the laity. In our hospitals for infectious and contagious diseases, where the physician can carefully attire himself with gown, cap and mask, it would be practical and of accepted virtue as a precautionary method against the spread of the disease from the daily wearing apparel. For the protection of the individual who wears the mask, the writer can not see the logic of its use as a practical preventive. The real virtue to be received from its use, would be the object lesson it would have for the laity, and those under quarantine, and would demand on their part a better cooperation and a more careful procedure in their efforts to assist the profession or the epidemiologist.—[Dr. S. D. Hatfield, in *West Virginia Med. Jour.*, Oct. 1919.]

ONIONS AS A PROPHYLAXIS

What virtue there may be in the active principle of the onion eaten during an epidemic of infectious or contagious disease, is a question. It may be that its properties to stimulate the function of the mucous glands of the respiratory tract, and thus, as it were, wash away the excessive clumps of the germs peculiar to influenza, may be effective, or that it may have some specific antiseptic property against the growth and development of such germs, or that its deodorizing properties are more than the ordinary germ of influenza can bear in its endeavor to gain a habitat in its host. The simple idea of the eating of onions as a preventive measure against the spread of the many infectious and contagious diseases of which human beings are victims, and which measure is valued and held most sacred by mothers, and largely considered true by the laity, as well as a few of the profession, may not appear so unscientific or as worthless, as many measures used by the profession during the recent pandemic of influenza.—[Dr. S. D. Hatfield in *West Virginia Med. Jour.*, Oct. 1919.]

PERSONAL INFLUENZA PROPHYLAXIS

In a paper read before the West Virginia Medical Association, last May, Dr. S. T. Hatfield (*W. Va. Med. Jour.*, Oct.) describes the measures that he took in order to protect himself against acquiring influenza.

For some years it had been his custom to vaccinate himself with one of the commercial stock-influenza-bacterins whenever exposed to influenza and, having confidence in its virtue to produce an acquired immunity against this disease, he revaccinated himself as a first measure of self protection. Among other means adopted for his own protection, Doctor Hatfield made it a practice to live and sleep in the open all the time. His principal thought was, not to be found in congested, close and decidedly small rooms; not to visit patients in such quarters. Before enter-

ing a room where there was a suspected case of influenza, he invariably requested that the door be left open for a moment before he entered the room and, at the same time, directed that a window be raised so as to change the air in the room or, at least, to allow fresh air to mingle with the impure and germ-laden dust of the sick room. Furthermore, the doctor avoided, as much as possible, coming in contact with the patient or while making the necessary physical examinations, touching material contaminated with the excessive mucous secretions characteristic of the disease. Finally, he never drank or ate about the home of the patient and he made it a custom to drink tea or coffee, when thirsty, instead of water, and to eat an onion every day. While he does not assert that the influenza bacterin employed actually did prevent his acquiring the disease, he, nevertheless, is in sympathy with the principle and is confident that eventually its employment will be justified.

DOES ONE ATTACK OF INFLUENZA CREATE AN IMMUNITY?

The question as to whether one attack of influenza or influenzal disease successfully recovered from confers an immunity to a later acquirement of the disease, during the same pandemic or epidemic, has been asked on numerous occasions and has received contradictory answers. Theoretically, it must be admitted that the mere fact of recovery from influenza, as from any other infectious diseases, postulates the establishment of an immunity with arrested further multiplication of the bacteria, curtailing their pathogenic action. However, it is probable that such an immunity often is not very lasting, although it may protect against renewing attacks of the disease within the next few weeks, or, possibly months.

The opinion has been expressed that the epidemic of influenza that is expected this fall and winter will be less severe than that of last year because all those very susceptible to the disease were killed off a year ago, and because those now living probably would by that very fact be proved to enjoy a satisfactory resistance. This view is supported by the fact that the influenza epidemic of 1890 was less severe than the pandemic of 1889, probably because the blood of the people acquired immunizing properties against this particular infection.

In discussing this point, Doctor Hatfield, to whose article on influenza prophylaxis we have referred to in the foregoing abstract, knows "of no other preventive used in the spread of the disease that might have played any better part than the acquired immunity from having had the infection the preceding year." He has not been able to convince himself that any patient of all those he attended presented the clinical symptoms of the disease more than once. Indeed, his observations caused him to assume a rather skeptical attitude toward the opinion held by some of the affection appearing in the same individual a second time during the pandemic. He relates that one family of ten became infected with influenza in the early part of the pandemic, and had one infant of two months and one boy of four years who escaped the disease. In the more recent epidemic, which invaded the vicinity, the infant and boy referred to had the disease, but no other member of this family, who had the infection in the pandemic, became infected. He made similar observations in as many as six different families. These facts, and his own convictions from clinical symptoms upon which he was forced to base his diagnosis, convinced him that one attack did seemingly establish an acquired immunity for a period of time longer than first thought by many persons. As to recurring attacks, he found a large number of complications following the recrudescence of the infection that might have been improperly termed recurrences.

TREATMENT OF DRUG ADDICTION AT RIVERSIDE HOSPITAL

The Weekly Bulletin of the Department of Health, city of New York, for September 27, contains information on the treatment of drug-addiction at Riverside Hospital, which latter is situated on North Brother Island. Last August, it was decided to utilize this hospital exclusively for the treatment of patients afflicted with drug-addication. The capacity of the male-unit is 523 beds, while that of the female-unit is 100; this number being in agreement with the proportion of the two sexes applying for treatment at the narcotic-drug clinic.

Patients are self-committed for six weeks, through the agency of the Narcotic-

Drug Clinic. The first seven or ten days are devoted to actual treatment, the next seven or ten days to convalescence, and the remainder of the time is given to the rehabilitation of the patients' mental and physical forces, so as to enable them to withstand any temptation to go back to their drug.

During the period of commitment, the patients are given employment in various activities on the island.

The treatment consists in elimination and the rapid reduction used during the first three or four days of the habit-drug, if a patient's condition warrants. Hyoscine-anesthesia is maintained for thirty-six hours, when the subject is transferred to the Convalescent Building, and lastly, to the Dormitory.

The treatment has resulted in no deaths and no bad after-effects seem to follow, if carried out with care. All patients are carefully examined before instituting the treatment, while unsuitable cases, such as, for instance, of tuberculosis or active syphilis, are sent to an appropriate hospital for relief, before attempting to cure them of their drug-habit.

The number of nurses in attendance is in proportion to the number of the patients; in the treatment-wards, one nurse for every two patients, day and night. In the convalescent-wards, one nurse day and night. In the dormitories, one nurse day and night.

At the end of the treatment, patients mostly are in a very weak condition, and they are transferred to the convalescent-ward for "building up." In these wards, they are carefully nursed and properly fed. As soon as they regain their normal strength, they are transferred to the Dormitory.

All patients assigned to the Dormitory Building are supposed to be in such phyical supervision, perform some kind of useful work.

It is needless to say that every possible precaution is taken to prevent the smuggling of drugs into the institution. The island is patrolled by nine police-officers, in three shifts of eight hours each. These officers are not allowed to enter any building, unless called there for special duty; they have nothing to do with the patients, in any way, except when an attempt is being made to violate regulations.

Various recreations are provided, including handball-courts, tennis-courts, croquet-ground, billiard- and pool-tables, moving-picture shows, library, and reading-room.

HOW TO TEST MUSHROOMS

In the latest (5th) edition of Friedenwald and Ruhraeh's "Diet in Health and Disease", there is quoted an excellent method of distinguishing between the edible and the poisonous varieties of mushrooms. It is reproduced here, as being of especial value:

"First, avoid every mushroom having a cup or suggestion of such at the base; the distinctly fatal poisons are thus excluded. Exclude those having an unpleasant odor, a peppery, bitter or other unpalatable flavor, and those of tough consistency. In addition, it is well to exclude those infested with worms, those in advanced age, or partly decayed; and, in testing new species, they should be kept apart from the others. The best test is, to begin with a piece the size of a small pea, masticate it very slightly, being careful not to swallow any of the saliva, and finally expel all from the mouth. If no results follow during the interval of a day, the experiment may be repeated, swallowing a little of the juice, the fragments of the fungus being expelled, as before. In twenty-four hours, the third trial may be made, swallowing a small fragment, and, if still no unpleasant results follow, the following day a piece the size of a hazelnut may be attempted.

"In using this method, poisonous varieties may be excluded, with only a temporary indisposition on the part of the experimentalist, and it is the only safe method of avoiding the poisonous varieties.

"As a rule, any mushroom, omitting the amanita, that is pleasant to the taste and agreeable as to odor when raw, is, probably, harmless and, if an unfamiliar species, it may be tested by the foregoing method. (For an excellent description—with illustrations—of the various fungi—the reader is referred to Farmers' Bulletin No. 15, United States Department of Agriculture.)"

Let's Talk it Over

Influenza and its Microbe

THERE seems to be a prevailing belief at the present time, that, until we find the real causative microbe of influenza, our therapeutic means to relieve or cure it must remain ineffective. This conviction I do not share; and, for cause.

In the first place, take tuberculosis, as an instance. The discovery, by Koch, of the bacillus has not given us a reliable specific remedy for the disease. We all know about tuberculin and what at first it was said to accomplish. We now know in how many instances it fails to be curative, or even to be notably helpful.

Unfortunately, also, nowadays, the use of drugs in the treatment of tuberculosis is, in large measure, relegated to the past as being of little value. The younger, advanced workers have become well-nigh therapeutic nihilists. They rely, merely, upon hygienic rules of life, plus good air, good food and well-regulated exercise, or employment.

This contracted view results from a too intent watching of the growth and number of the causative bacilli. If they are present in the sputum or urine, not satisfied with the diagnosis as a reason for giving a few time-honored remedies, the doctor simply hies the sufferer to the country, or to a sanatorium. And, yet, the bacilli, while fixing the diagnosis of the disease, often should be regarded somewhat as scavengers, the precise importance of which cannot be immediately determined. Surely, we should not, of necessity, be pessimistic and undervalue our resources in medical treatment.

In the treatment of syphilis, too, there is not much gained by the discovery of the spirochetes. What finally, has been the value of salvarsan as a specific remedy? To-day, we recognize that we must rely, as formerly, upon mercury as the most useful remedy to combat recurrent symptoms of syphilis, no matter how severe they may be.

There probably is no greater specific in disease than vaccination in smallpox. Yet, no one has demonstrated to us positively and with ample corroborative proof the effective causative microbe of the affection. So it is with scarlet fever, measles and with not a few other acute infectious diseases.

In diphtheria, I am well aware of the great results frequently shown from the early use of antitoxin. I also am aware that the discovery of the Klebs-Loeffler bacillus led the way to the finding of, and treatment with, antitoxin. As to typhoid fever, we know that the vaccine treatment has been of immense value in our armies, at home and abroad, in preventing the advent of the disease. In a curative way, it has been at times helpful, but, that is about all we can truthfully say of it so far.

Many of these diseases, irrespective of their bacillus, whether it be recognized or not, are treated upon general and recognized rules that to us seem most intelligent and which are the resultant of decades of observation and experience by the foremost clinicians.

In view of the foregoing facts and of others, that might be added, why do writers and experts consider the finding of the causative microbe of influenza, as of necessity, of so great importance, so far as treatment is concerned? It may, or may not be true. A few, at least, among the older practitioners, after many trials and wide experience, pin their faith upon the utility of a few drugs and these they consider essential to the cure of influenza in the majority of cases.

We have followed too closely our patients, in the past, to give up our faith. True, we have found no specific. There is

none; there may never be one. However, we purpose to add, to the general sound advise of health officers, something more definite and convincing.

Thus it is that, in our experience, certain remedies have a very sure and desirable action. To me, as I have stated many times already, no drug equals the sufficient and early use of salicylate of ammonium. I am, also, convinced that the perforated zinc respirator is the best of all masks, when properly medicated and intelligently and sufficiently used.

BEVERLEY ROBINSON.

New York City.

CARE AND TREATMENT OF INFLUENZA-PATIENTS

Last year's epidemic of influenza has brought forth much of interest concerning the care and medical treatment of influenza-patients. As to the care of patients in all cases of influenza and its complications, all doctors, I believe, are agreed; but, as to medicinal treatment, especially in the case of some doctors, opinion appears to differ considerably.

Good care of the patients is of vital importance in the treatment. Many deaths have occurred from influenza because of the lack of proper care; either because of carelessness on the part of the patient, or of the attendants, or, sometimes, from inability to secure proper attendants, especially regular nurses. Too much stress can not be laid upon this point, especially in the prevailing form of the disease.

As to the medicinal treatment of influenza-patients, my experience justifies me in stating that definitely indicated medicinal treatment throughout the full course of the disease is important; and this does not mean the expectant plan, giving little or no medicine while waiting for symptoms to arise before intervening. When called to an influenza-patient, I start active medicinal treatment at once, not merely with cold water, lemonade, and ice-bags—which are good so far as they go—but, with medicines, as indicated by the symptoms; my first efforts being directed toward cleaning out the alimentary canal and seeking to relieve the patient as much as possible of distressing symptoms, whatever they may be. To be more specific, I will cite a number of cases to show how I proceeded throughout the last year's epidemic.

Case 1. My own daughter, aged 23 years. She was living in a nearby town where the epidemic was quite severe, with a goodly number of deaths occurring. Her symptoms were as follows: Initial temperature, 102° F., headache, general body-ache, a troublesome cough from bronchial irritation. A local physician prescribed for her the customary medicinal treatment, namely, aspirin and quinine for the various aches and the fever, and Dover's powders to quiet the cough; also a laxative. With this treatment, continued for about a week, my daughter's condition grew worse from day to day. Her temperature had gone up to 104.5° F., and she was coughing almost continuously night and day, and unable to sleep. The bowels were not sufficiently active. Called to see her and after consulting with the attending physician, I took charge of her case, remaining with her for a week.

I began treatment with calomel, podophyllin and bilein tablets, one every hour until four were taken, and a laxative saline two hours after the last dose of the tablets. For the headache, I gave phenacetin, 5 grains every three or four hours. As a special fever-medicine I gave the dosimetric trinity granules (see footnote on page 788, November issue), one every half hour for several hours, then one every hour. For the very distressing cough, I gave her the following cough-mixture, which, I confess, is of the shotgun kind, but, which does the work as no other cough-medicine ever has done for me.

	No.	Strength
Gelsemoid granules	64	gr. 1/28
Atropine sulph. granules	32	gr. 1/250
Emetoid granules	24	gr. 1/6
Codeine-sulph. granules	12	gr. 1/4
Strychnine arsenate granules	18	gr. 1/128
Apomorphine hypodermic tablets	20	gr. 1/10
Iodized calcium tablets	10	gr. 5

Dissolve all the granules in 2 ounces of hot water, crushing them, and the tablets of iodized calcium separately in 2 ounces of hot water. Pour both solutions into a pint-bottle and fill up with simple syrup colored with carmine; this making 1 pint of cough-syrup, the dose of which is, one teaspoonful every half hour for several doses to effect and then every one or two hours. Of this cough mixture, I gave my

daughter a teaspoonful every half hour to effect.

Now as to results of that treatment. In four hours, I had the cough controlled so that there was no further distress from it. In eight hours, the little dosimetric granules had brought down the fever, from 104.5°, to 101.5° F. Two or three of the "modified No. 1" hyoscine, morphine and cactoid tablets, taken in the evening, procured needed sleep. On the third day of this treatment, the temperature was normal and remained so. The after-treatment consisted of tablets containing Strychnine arsenate, gr. 1-128; quassoid, gr. 1-64; papain, gr. 1-32; and juglandoid, gr. 1-6, before meals; granules of the triple arsenates with nuclein after meals, and the cough-mixture as needed.

Case No. 2. Man, about 55 years old. Was taken with influenza about 6 o'clock in the evening. Complained of a bursting headache, severe vomiting, bronchial irritation, general distress; there was only a slight rise in temperature; he was constipated. My treatment: for the vomiting and constipation I gave cerium oxalate and bismuth, one tablet, and two tablets consisting of phenolphthalein and calomel with aromatics every half hour, for five doses; to relieve at once the severe distress in general, 1 hypodermic hyoscine-morphine-cactoid tablet. Internally, for the headache, I prescribed one 5-grain aspirin tablet and one 1-grain quinine-sulphate tablet every three hours; for throat and bronchial trouble, my cough-mixture, every two hours; a saline laxative after the last dose of the phenolphthalein. The result of the treatment was prompt. On the third or fourth day, he was able to attend in part to his work as buttermaker.

Case No. 3. A girl of 14 years. She had influenza, with headache, bronchial cough, tonsillitis, and a temperature of 105 degrees. She had been under the care of a neighboring physician, who was giving her aspirin tablets every four hours and a cough-tablet of some kind every two or three hours. As the patient did not seem to improve under this treatment, I was called to attend her.

I began treatment with phenolphthalein-calomel tablets, two every hour for three doses, followed by a laxative saline. Other medicines were prescribed as follows: Phenacetin tablets, 5 grains, with quinine tablets, 1 grain, one of each every four hours, dosimetric-trinity granules, one every half hour, for three or four hours, then every hour; the foregoing cough-mixture, a dose every two hours. The second day, I prescribed tonsillitis-tablets, one with each dose of the trinity granules, to effect. Good results followed this treatment.

This treatment was begun about 5 o'clock p. m., and by 1 o'clock a. m. this patient's temperature was lowered, from 105° to 102° F., and continued to drop each day, reaching normal on the third day, all other symptoms being relieved at the same time. For the sleeplessness and distress, an occasional tablet of hyoscine-morphine-cactoid with pilocarpine and caffeine was given, with excellent effect. During convalescence, digestive tablets before meals, and the triple arsenates with nuclein, after meals, were prescribed.

Case No. 4. A child, a boy one year old. Had influenza, with a temperature of 104.5° F. There was continued stupor. Another physician had charge of the case and was giving small powders of phenacetin every three hours and a cough-syrup every two or three hours. I was called in consultation at 7 o'clock p. m., and we continued the attending physician's treatment till 7 o'clock a. m. No improvement being apparent, I suggested additional treatment for the high fever, to which the attending physician consented. We prescribed "dosimetric-trinity" granules and coryza-granules (containing atropine sulphate, 1-1000; aconitine hydrobromide gr. 1-3000; codeine sulphate, gr. 1-64; quinine arsenate, gr. 1-32.) two of each dissolved in half a glass of water, giving a teaspoonful of the solution every fifteen minutes, for six doses, then every half hour till 6 o'clock a. m., when the temperature was down to 101.4° F. and the boy awoke from his stupor. The fever-solution was then continued every hour, and the child continued to improve and get well; while, before giving the fever-solution, it was considered doubtful whether the boy would live, as he had lain in the stupor for days.

In the treatment of influenza-patients, as principally outlined in the foregoing cases, I have had results pleasing, not only to myself, but, to my patients as well, having

lost but one patient and that principally because of the lack of care.

I may here more fully outline the medicinal treatment employed by me in the last epidemic of influenza. For clearing out the alimentary canal, in adults, calomel, podophyllin, and bilein and, in children phenolphthalein with calomel and aromatics, followed, in either case, by a laxative saline, and once in a while castor-oil, if better suited; also in some cases enemas were demanded. For the headache and general aches and pains, acetylsalicylic acid, 5-grain tablets, or phenacetin, 5-grain tablets, and with either of them one quinine-sulphate 1-grain tablet every three or four hours. If headache and general pains are severe and distressing, I give, as the first dose of treatment, one hyoscine, morphine, and cactoid hypodermic tablet, by mouth; relief being being prompt and lasting. If the distress is not so severe, I give two hyoscine, morphine, and cactoid tablets modified with pilocarpine and caffeine; and, with good results. Also, for restlessness and insomnia, I continue the last-named tablets, at various intervals, to effect. In giving either one of the hyoscine, morphine, and cactoid tablets as above, I have had only the best results, and have seen no harmful effects whatever.

For the fever, I give mostly the "dosimetric trinity" formula, which has proven its value in bringing down the temperature with a certainty in every case. A tablet consisting of brucine hydrochloride, gr. 1-128; quinine ferrocyanide, gr. 1-112; calcium sulphide, gr. 1-6; and aconitine hydrobromide, gr. 1-3000, also has been good in a few cases where used. The defervescent combination, in one or two cases only, for a full and bounding pulse, gave the best of results. For the nausea and vomiting, cerium oxalate with bismuth acted well. So also did hyoscine, morphine, and cactoid tablets. For the diarrheal condition of the bowels, zinc and codeine tablets afforded certain and prompt relief. For the sore throat or tonsillitis, tonsillitis-tablets, and where external muscular soreness of the throat was complained of, as well as glandular soreness, phytolaccoid, both of which remedies gave the desired relief. For bronchial cough, as well as for congestion of the lungs, the cough mixture described above acts well. During convalescence, the digestive tablets and granules of triple arsenate with nuclein are given.

It has seemed to me that the early control of fever in influenza is of much importance, keeping the temperature down to 101° or 102° F.; and here is where the dosimetric-trinity formula has proven its value time and again in my hands when given in addition to one of the coaltar preparations usually employed by so many physicians. In several instances I have noted that the coaltar derivatives have not controlled influenza-fever and that patients were slipping away to or beyond the danger-point, when, with the addition of some other antipyretic, principally in my own cases, such as the dosimetric trinity and, in suitable cases, the defervescent combination and similar remedies, control of the fever would follow with marked relief to seriously sick patients in from six to ten hours' time.

I wish to emphasize here the value of hyoscine, morphine, and cactoid tablets, hypodermic or modified, by mouth, either one given internally, in the treatment of influenza. When given with proper care, there is no more danger from using them than from using other medicines that we prescribe daily. For the distressing symptoms of influenza in any stage, these tablets in my hands have been given in most of our cases with happiest results.

If an influenza-patient is complaining bitterly of a severe headache and general distress, one single hypodermic hyoscine, morphine, and cactoid tablet given by mouth, will afford prompt and lasting relief until other medicines have time to act. For insomnia and nervousness, the hyoscine, morphine, and cactoid combined with pilocarpine and caffeine, every one to four or six hours for a few doses only each twenty-four hours will give needed rest and comfort not obtainable nearly so well otherwise. I have had no harmful effects resulting from the use of these tablets at any time and I have dispensed over 500 of the tablets modified for oral use during the epidemic. [We believe that these combinations of morphine, while excellent, should be employed only in emergencies.—Ed.]

In a case of inflammatory rheumatism following influenza, where the patient had suffered for two weeks without rest or sleep, three hyoscine, morphine, and cactoid tablets at hourly intervals, in the evening, gave a good night's rest and sleep, which

continued most of the next day, with lowering of temperature and general relief.

Last February's number of CLINICAL MEDICINE is one of the best numbers I have had, containing, as it does, a goodly number of interesting and helpful articles on various subjects. However, I must disagree with the treatment of influenza advised by Prof. Paul Demiéville, of Lausanne, which seems to be on the expectant plan. His advice as to cleaning out the bowels with mild laxatives and giving to influenza-patients the greatest possible care is all right, but, when he advises the use of water, lemonade, and ice-bags for the fever, headache, and so forth, I can not agree with him.

Why should a patient be left without medicinal treatment until pneumonia, heart failure or any other serious trouble sets in? Why not begin active medicinal treatment at once, to relieve distressing symptoms and avoid, when possible, the complications that Doctor Demiéville so anxiously waits for before he begins treatment? I can not see that his prescription of a solution of hydrochloric acid has any bearing upon the symptoms of influenza. Counter-irritants, dry-cupping, and so forth, are relics of the past, and, to subject an influenza-patient to such treatment without up-to-date medicinal treatment, is gross neglect. He condemns all antipyretics. Possibly he gives these in too large doses. If he will give them in small and often repeated doses, no harmful effects need be feared; only good results will follow. His objection to giving medicines because they upset the patient's stomach is not well taken, provided the medicines are properly given. I have had very little trouble in this respect. Only in a few cases have I had patients who could not take medicines in liquid form, but, who could take the same medicines in granule or tablet form.

Professor Demiéville's statement, "that a seriously sick patient should be placed in a chair a certain number of hours each day" seems to me ridiculous. If for any reason whatever it is necessary to place a patient in a sitting posture, he should be propped up in bed and not in a chair. With the treatment, or nontreatment, of Professor Demiéville I certainly should expect, in many cases, the grave conditions he mentions, but, thanks to modern medicine and methods of treatment, we have comparatively little to fear of these grave eventualities.

G. A. EVENSON.

Janesville, Iowa.

ASPIRIN AND ACETANILID

Kindly tell me what you think of aspirin. I can get more relief from acetanilid combined with sodium bicarbonate. I use this even in rheumatism, where pain is severe, and in all kinds of fever. Aspirin does not allay fever promptly enough for me.

Acetanilid combined with sodium bicarbonate is almost infallible in earache of children. When they come after me, at night, I just give a dose according to the age of the child and, in thirty-five out of a hundred, that is all that is required.

In children over five, my favorite for fevers is, one drop of the tincture of aconite root with ten of spirit of nitrous ether and, if the fever is due to cold, I add two or three drops of ipecac. I order this medicine given every two hours until the fever is allayed, and but rarely have to give the third dose.

W. S. CLINE.

Woodstock, Va.

[We have frequently voiced our views concerning the good and the bad qualities of acetylsalicylic acid, acetanilid, and kindred remedies. We have invariably taken the position that, properly administered, these remedies possess as great possibilities for good as they are endowed with dangerous properties if prescribed carelessly and wrongly.

Personally, the present writer likes acetylsalicylic acid a lot, although being careful to prescribe it invariably with "q. s. of brains." However, he also employs acetanilid, usually with bicarbonate of sodium, and both remedies are frequently combined with monobromated camphor.

We have found in early cases of "cold", whether they be the beginning of a simple coryza with pharyngitis, and so on, or of influenza, or any of those catarrhal afflictions involving the upper respiratory passages with the initial rising temperature associated with general discomfort and restlessness, perhaps headache—that the symptoms are well controlled by acetylsalicylic acid. We have noticed especially a diminution of the restlessness and of the

general discomfort; patients commonly going to sleep and waking with their symptoms decidedly abated, although the patients may be "limp".

Acetanilid we employ more when there is present decided pain, and we can well understand your success with it in the earache of children. Here, however, we believe it wise to remember that earache in children usually means, a bacterial infection and that the indications are very clearly for calcium sulphide and for elimination.

There is no doubt about it that the customary defamation of acetylsalicylic acid and of acetanilid is as ill-conceived and as mistaken as was the first uncritical and haphazard prescribing of both remedies. Undoubtedly, they are powerful drugs; but if they are ordered rightly, no harm will result; on the contrary, much good will come of it.

Your fever treatment of small children is good, but here also we would add active elimination. In fact, a great many instances of fever in small children will yield to a course of calomel followed by saline laxative lemonade or castor oil—only that and nothing more. Aconitine hydrobromide, emetine hydrochloride, and various other alkaloids usually will give even more definite results; while being administered with greater ease.—Ed.]

TWELVE HUNDRED CASES OF "FLU" WITHOUT A DEATH

I will write just a few words about the great epidemic of "flu", in which we all were concerned last fall and winter. I treated 1,200 cases and, among them, 17 cases of pneumonia, without a death. Of course, I must admit that I was fortunate, as we all must lose cases occasionally.

On diagnosing influenza, my first thought on treatment was, elimination by way of the kidneys, bowels, and skin. To sweat the patient, equal parts of quinine and acetylsalicylic acid were ordered, which caused profuse sweat and also stopped the aching. My main treatment for the bowels was, epsom salts or, better, saline laxative. I found that these remedies not only cleaned the bowels but that they kept the kidneys active as well. After the fever has subsided, any good tonic may be ordered.

Of the pneumonia patients, all were seriously sick, as, indeed, are most influenza patients. The general treatment is comprised in a conscientious observation of the rule: "Clean out, clean up, keep clean." For medical treatment, I gave aconite, bryonia, belladonna, ipecac, as indicated; also, cactus and nux vomica in order to support the heart. Whether it was all

Dr. C. H. Armstrong

good luck or not, all my patients got well. If I had to use just one treatment for the "flu", it would be *"saline laxative"*.

C. H. Armstrong.

Preston, Iowa.

A REQUEST FOR HUMAN EMBRYOLOGICAL MATERIAL

In 1905, I observed certain malformations of the human shoulder-blade and, in contributions to current literature, I have given them the collective name "the scaphoid type of scapula", pointing out to some extent its hereditary, clinical, and anatomical significance.

Probably the most important observation connected with this type of scapula in man is, its age incidence That is to say, it occurs with great frequency among the young and with relative infrequency among the old. There appear to be two possible explanations of this fact: Either

1. One form of shoulder-blade changes into the other during the development and growth, or

2. Many of the possessors of the scaphoid type of scapula are the poorly adaptable, the peculiarly vulnerable, the unduly disease-susceptible—the inherently weakened of the race.

I have attempted to answer these questions by seeking evidence in various directions and one of the most important of

these has been, a study of the intrauterine development of shoulder-blades. My investigations in this direction have been limited by the material at my disposal which has been inadequate for a definite solution of this phase of the problem. I am, therefore, appealing to physicians for human fetuses in any and all stages of development.

It is desired that the material, as soon as possible after delivery, be immersed in 10-percent formalin in a sealed container, and be forwarded to my address (727 Metropolitan Bldg.) charges collect. Due acknowledgment will be made to those forwarding material.

William W. Graves.

St. Louis, Mo.

[We hope that Doctor Graves' interesting investigations will be kept in mind by physicians having suitable fetal material to send to him. The object is worthy of support and the investigator naturally looks for this support to his colleagues.—Ed.]

A COURSE IN PSYCHOTHERAPY AND HYPNOTISM

We are informed that the Society of Psychotherapy, Hypnology and Psychology, of Paris, France, resumed its meetings on the 21st of October last, after an interruption of five years. Doctor Bérillon, the secretary of the society, has told our Paris correspondent, Doctor Sherwood-Dunn, that American students or physicians who may sojourn in Paris will be welcome to the meetings of this society. Its investigations extend to general psychology, biological and comparative psychology, psychotherapy, psychopathology and psychiatry, psychopedagogics, social and collective psychology and military psychology.

The meetings of the society take place, on the third Tuesday of every month, at rue Saint-André-des-Arts, 49.

INDUSTRIAL HEALTH WORK

We are informed that the medical department of Armour and Company has taken precautions among plant employes against a return of the "flu" epidemic in Chicago and other cities where the Armour plants are located.

All employes have been notified that they may have the influenza vaccine, according to the formula of Dr. E. C. Rosenow, administered to them without charge.

In addition to offering this immunization treatment free to the employes, a general educational campaign along health lines and particularly with reference to the "flu" is being carried on among the workers in the plant.

Dr. Volney S. Cheney, medical director of Armour and Company, reports that the employes are taking an interest in the campaign and that, as a result, no serious recurrence of influenza is looked for among Armour workers.

LETTERS FROM FRANCE—XV[1]

M. Réné de Montozon-Brachet, the well-known French writer and lecturer, has just formed a new league, to be known as "L'Accueil Français." Its object is, to aid junior officers of the American, British, and Allied armies to enter various circles of French society.

The committee comprises the names of some of the oldest members of the French aristocracy, among them being: Mme. J. Adam, Comtesse P. d'Aramon, Duchesse de Bissaccia, Princesse Albert de Broglie, Princess Jacques de Broglie, Duchesse de Doudeauville, Duchesse d'Étissac, Comtesse de Gabriac, Duchesse de Guiche, Princesse de la Tour d'Auvergne, douairière, Duchesse de Luynes, Marquise de Mac-Mahon, née Vogue; Marquise de Mortemart, Princesse Louis Murat, Princesse Michel Murat, Mme. Nisard, Comtesse de Nouailles, Duchesse de Rohan, douairière, Comtesse de Talleyrand-Périgord, Duchesse d'Uzès, douairière. Other members are: Mm. Paul Bourget, E. Brieux, M. Donnay, G. Hanotaux, Comte D'Haussonville, Pierre Loti, Duc de Bissaccia, and other brilliant writers and scientists.

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A new "Cercle du Soldat," was opened yesterday afternoon at 5 Boulevard de Strasbourg, by Colonel and Mme. Peyron, of the Salvation Army. This new club, which adds one more Salvation-Army home for the Allied soldiers, helps to fill a need in accommodating the great number of soldiers that are arriving in Paris every day and find it impossible to secure rooms.

The premises have 20 beds, with nice washrooms, and provided with central heat

[1] It should be kept in mind that these letters were written months ago.—Ed.

throughout the building; there also are bright writing- and reading-rooms. No meals will be served except breakfast; tea and coffee, though, will always be obtainable by those wanting refreshments.

Commandant Matter presided at the opening-exercises yesterday and spoke of the work of the organization. Colonel G. Marescaut, the officer commanding the British troops in Paris, General Price, commanding the Central area, and General Hearts, the commanding officer of the American troops in Paris, spoke of the excellent work that had been accomplished by the Salvation Army at the front and in Paris. They spoke especially of the "Cercle du Soldat" in Marseilles and that in Strasbourg.

Both the Minister of War and the Military Governor of Paris were represented, as was the minister of the Interior. Captain Blunt, a chaplain of the Forces, also spoke feelingly of the work of the Salvation Army.

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According to plans outlined at the opening of a three-day conference of the Atlantic division of the American Red Cross, 20,000 nurses, after they return to the States from overseas-service, will be utilized in an educational campaign, to organize classes in the home, for the study of hygiene, the care of the sick, and general home-duties.

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The Knights of Columbus Overseas Minstrel Aggregation, a troupe of more than sixty well-known performers, have been playing to crowded houses at the Théatre Comédie during the past week.

The enthusiastic reception of the organization on its initial week of a tour that will include every important location of troops in France, was very gratifying. The shows were, of course, for the members of the second Army, now stationed in Toul, still, the audiences included also hundreds of soldiers here on leave. The show is complete with up-to-date costuming, stage-setting and lighting-effects. The cast is made up of soldiers, sailors, marines, and K. of C. secretaries, and, as they are becoming accustomed to the difficulty of staging such a production in the quarters available, the entertainments are going with a real snap.

In carrying out the determination of the K. of C. to see that all of the men in the A. E. F., have an opportunity to see the show, the organization has been divided into lesser units, and, during the present week, will complete a circuit of camps and smaller centers in the Toul sector. These units are so arranged that a full evening's entertainment may be given, and they are being sent to the various points under the direction of an area-entertainment officer.

The whole activity of the organization is under the direction of manager J. B. Fearon. Following the present-week's program, which includes Conflans, Gondrecourt, St. Mihiel, and Sazerais, the units will report to Manager Fearon at Pont à Mousson, where the entire company will again produce the minstrel show for three nights.

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W. Frank Persons, who recently resigned as General Director of War Relief for the American Red Cross, is to go abroad to make a study of investigation of the worth of the various American Relief activities started in European countries and which are now seeking support here.

In a list issued by the National Investigation Bureau, more than thirty relief-organizations have been approved as worthy.

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City of Paris statistics for last week show that the total number of deaths in the capital was 1,894, as against 1,457 during the preceding week, and of 1,076, the average for the season. The number of deaths ascribed directly to influenza is, 358.

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After four years of ceaseless and exceedingly valuable work for the wounded "poilu," the Hôpital Français de New York, at Passy (Yonne), has been handed over to the French Service de Santé Militaire, 5th Region. Ever since 1914, this hospital in the fine old sixteenth-century chateau of Passy, has been administered and supported entirely by the Société de Bienfaisance Française de New York, and was handed over on Saturday only because the Society's voluntary agreement for the duration of the war has expired. It will in future be used as a sanatorium for tuberculous French soldiers.

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There was a large company present, on Saturday, at the farewell-lunch given by M. Henri Chapal and the staff of the hospital. These included MM. Simonet and

Lucien Cornet, Senators M. Jobert, Deputy for Sens, and General Lemoine, Director of the French Service de Santé Militaire, 5th Region; Leroux, commanding the battalion d'instruction; Mme. Laladini, sister of M. Jouvand, president of the Société de Bienfaisance Française de New York Doctor May, of the Orléans Franco-American section, Major Pierre Barges, medical director of the hospital, Doctor Wright, of New York, one of the medical staff. The American nurses attached to the hospital also were present.

A lunch so admirably cooked that the chef, a soldier in the French Army, must surely have jeopardized his chances of demobilization, fortunately was not followed by the withdrawal of the ladies, all of whom had been personally interested in the work of the hospital.

M. Henri Chapal opened the toast-list by drinking to the United States. Senator Cornet seconded and paid a warm tribute, not alone to the magnificent work that had been done by the American Army, but, also, to the special work of the hospital and the Société de Bienfaisance Française.

Doctor May, in replying to this toast, declared that his countrymen, in espousing the cause of world-freedom, had also done something toward repaying America's debt of gratitude to France and Lafayette.

After Doctor May had raised his glass to France, a final toast was proposed by M. Chapal, who drank the health of M. Jouvaud, president of the society, addressing himself more particularly to Mme. Paladini, M. Jouvaud's sister.

M. Louis Maurier, Under-Secretary of State for the French Service de Santé, arrived soon after lunch, having arrived by automobile from Paris. After having visited the hospital, he presented a number of decorations to the staff. Major Pierre Barges was presented with the Cross of the Legion of Honor, while the following American nurses were, each, decorated with the "Médaille de Dévouement," in recognition of their self-sacrificing services in the hospital during the past four years: Mary Kennedy, Florence Gordon, Camilla McCormick, and Ruby Rodgers. A like medal was awarded to Mlle. Yvonne Retiff and Mme. Longuet, wife of the Mayor of Passy. Lieutenant Wright, assistant surgeon at the hospital, also was decorated.

M. Maurier, in the course of a speech that closed the official proceedings, expressed the "profound gratitude of the entire French people" to their friends of New York. The hospital at Passy, with its wonderful surgeons and its perfect appliances, had done invaluable work for France and the French soldiers, and thanks were particularly owing to Mrs. Fitzgerald, to Mr. Waters, and other members of the Société de Bienfaisance.

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After one year of entertaining American soldiers on leave of absence, Aix les Bains, the first leave-area established in France, is proud to have them as guests, and of the leave-area plan, not only as resulting in pleasant vacations for the boys, but in a stauncher friendship between France and America.

Those were the facts brought out last night in the celebration of the first anniversary of the opening of the area. Representatives of the American army, the Y. M. C. A., and the town of Aix les Bains participated in the ceremonies, in recognition of the cooperaton between the three in the great work that has been done for the soldiers here.

It was only a little more than a year ago that the Y. M. C. A. recommended the establishment of a leave-area here and the general policy of establishing other leave-areas in the "show"-places of France. The army approved the plan, and the first permissionnaires (soldiers on leave) arrived on February 16, 1918. The citizens welcomed them cordially, and many of the men, when leaving, said that their seven days gave them a new understanding and appreciation of the French.

The famous baths, in use since the time of the Romans, the winter sports on Mount Révard, and all the pleasures that tourists long have sought here delighted the permissionnaires. The Casino, second only to that at Monte Carlo, had been converted into a replica of "The Palace of Delight" in Besant's novel of "All Sorts and Conditions of Men." There the Y. M. C. A. gives as many as twenty entertainments a day and provides all the pleasures of a club.

M. Termis, premier adjutant of Aix les Bains, spoke for the city and the province of Savoy; F. S. Edmonds, head of the leave-area department of the Y. M. C. A., spoke for that organization, and Col. Charles G. French, commanding officer of the A. E. F. here, spoke for the army. M.

Termis said that the citizens had found pleasure in taking the American soldiers into their homes and that their gentlemanliness there had endeared them to the citizens as much as had their heroism at Chateau-Thierry, Belleau Wood, and Saint Mihiel.

Mr. Edmonds thanked the army for its fine cooperation in all the efforts of the Y. M. C. A. there and thanked the French citizens for extending to the "Amexes," not only hospitality, but, the companionship of high ideas and the friendship of ladies and gentlemen. Colonel French thanked the citizens of Savoy for the fine spirit they had shown the American soldiers.

B. Sherwood-Dunn.

Paris, France.

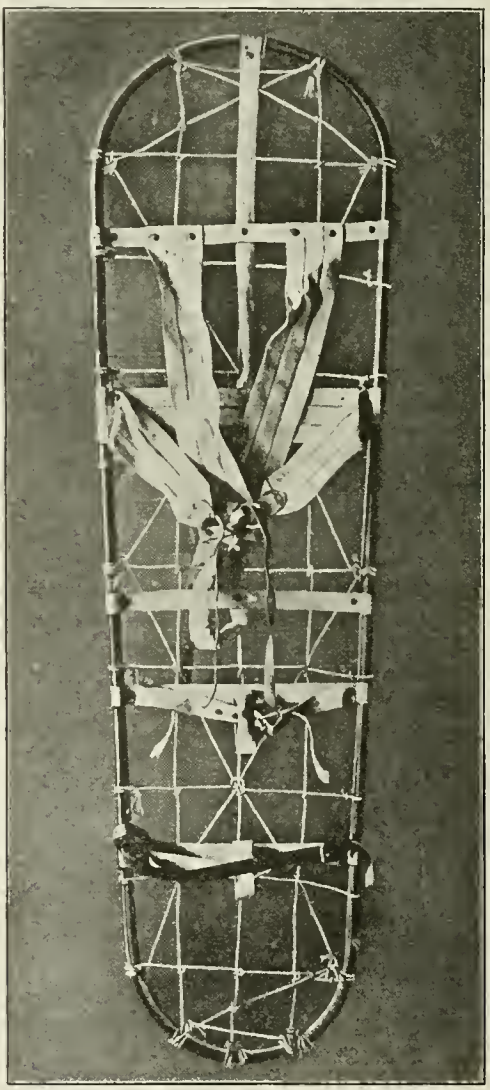
RED CROSS NOTES

The Red Cross Splint Department.— Of all the services performed by the American Red Cross for the American Expeditionary Forces, none met a greater need than did the splint-department. Among 50,000 wounded men, there is a percentage of 40 fracture-cases; accordingly, when the army went overseas, agreement was made whereby the American Red Cross should supply the splints; and the army placed with the organization an order for 462,350 splints. Of this number, 294-583 were shipped before the signing of the armistice canceled the remaining number.

At a conference of Medical Officers called by Colonel Bradley, Chief Surgeon of the A. E. F., the types of splints to be used were announced as follows; the Thomas Tractor-Arm, the Sinclair Modified Thomas Arm, Jones Humerus Tractor; Jones Cock-up Wrist; Thomas Traction-leg; Hinged Half-Ring Thigh and Leg (Blake-Keller); Long Interrupted Liston; Anterior Thigh and Leg, Cabot Posterior Wire Leg; Ladder Wire Splints; Balkan Frames and Accessories; Galvanized Net Wire Gauze; Maddox or Bradford Frame and Clamps.

Much difficulty was experienced in obtaining material for the manufacture of the splints, but, the problem was solved by the Purchasing Department of the Red Cross. Orders were placed with the John Thorne Company and with the British Red Cross, being distributed among various factories. The weekly production averaged from 15,000 to 22,000. The largest order given by the army during any one month was placed August, 1918, and was for 353,000. There were 205 tons of steel used in the manufacture of the splints.

A manual of drawings of the standardized splints was published by the Red Cross. It was later recalled by the army,



A Useful Red-Cross Litter.

revised, and republished in February, 1919, and is to continue in use.

The Red Cross also provided for the storing of the splints, by taking over a warehouse in Paris and placing it in charge of Major Arthur Kelly. Eight laborers were employed here, and there

were times when as many as one carful of splints a day left the warehouse, which was open from 7:30 in the morning until midnight. To facilitate shipping, the cases were standardized. From December 1 to 14, 1917, there were shipped 8085 cases, having a total tonnage of 575,064.6 which did not include packing material or racks.

Several new appliances were developed as a result of war-needs; the first was the Trench-Litter or Snowshoe-Litter invented by Lieut.-Col. Garcia of the U. S. Medical Corps. This litter is made like a huge snowshoe, on which the man can be strapped and carried through the narrowest of trenches. (See Fig. on p. 862).

Stretcher-bars were next made, to raise the leg of a man wearing a Thomas splint to the desired angle when being conveyed from the front to the evacuation-hospital; for, the Ford ambulances would not permit a man wearing such an appliance to lie flat in the ambulance. Its success caused the Army to increase its order from 500 to 1,000.

A wire leg-rest, to raise the limbs of patients in the hospitals, also was devised by Major Kelly, one that would fit either arm or either leg. Of these, the army ordered 3300. The Splint-Department also produced a special adjustable strap, which facilitated the placing of a Thomas splint for the stretcher-bearer on the field.

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Public Health Stressed on Red-Cross Peace Program.—Public Health is to be stressed on the peace-program of the American Red Cross, which has recently been outlined by Henry P. Davison, chairman. A campaign to enlist the sympathies of the people in a public-health crusade is to be conducted, with a view to arousing public opinion to an appreciation of, and a desire for, higher standards of civic sanitation and to the necessity of establishing Red Cross public-health nurses in cities and in rural communities.

During the war, the Red Cross worked in conjunction with the United States Public Health Service, in establishing sanitary units in thirty-two cities near camps, cantonments, and naval bases. The organization supplied equipment for the laboratories, bacteriologists, public-health nurses, and the serums and medicines necessary for the conduct of their work. For this purpose, an appropriation of $526,906.12 was made for the six months ending in June. Of this amount, $100,000 was spent on the prevention of communicable diseases.

The Red Cross has been requested to continue acting in cooperation with the Public Health Service at the ports of the United States. The purpose is, to prevent the admittance into America of immigrants infected with cholera and typhus. The prevalence of these diseases in the war-ravaged countries overseas, together with the fact that many are coming from them to America, makes the situation a serious one for this country.

Both the foreign-service organizations of the American Red Cross and those operating in this country will take part in this work. Explicit instructions will be sent out to the personnel of all commissions and units. All information will be wired, in order to insure the utmost promptness and efficiency.

Col. Robert E. Olds, American Red Cross Commissioner to Europe, has been one of the most eager agitators of the plan, which has won the hearty approval of all concerned.

MATERNAL IMPRESSIONS

When one is bold enough to prefix the above caption to a manuscript, in the face of the almost interminable arguments both, for and against maternal impressions, which are crowded into medical literature from the earliest records to those of the present day, he takes chances of being termed a "has been" or accused of slight acquaintance with the desirable medical literature.

However, my story is short. It deals with a very recent personal observation and is offered for publication in CLINICAL MEDICINE because physicians frequently are drawn into controversy on this subject which contains some interest for every true student of medicine and its companion science, biology.

Some years ago, a brother physician, before leaving to take up his residence in Arizona, gave me a male canary, an attractive bird and a fine singer. Bird life always had interested me, yet, I never had seen cage- or domestic canary birds in the breeding season and while raising their young. The following spring, I bought a female of equally good breeding and, mating these, I found much to interest me in

watching them rear several broods of young during that season. I had many requests for the young singers, they being low-voiced and having songs of unusual length and many changes. So, I gradually increased the number of mating birds and, in 1918, I raised more than one hundred young which were accepted by the Gas Defense Division of the Army.

The canary is credited with being more susceptible to noxious gases than any other living creature, the white mouse coming second. Thousands of canaries were used by the armies in France to detect the presence of gas in the trenches.

In the seven years of my experience with the birds, not all the chicks hatched were raised, but, I never found a crippled or a deformed chick among the many scores of nestlings.

During the last, the eighth season, I mated only five pairs. The canary is not strictly a monogamist as is the pigeon, but, I have not permitted promiscuous matings. I have kept the same birds mated throughout the nesting period of, usually, from four to six broods. The breeding cages remain in the same locations, the environments remain virtually the same and the feed and care varies only according to conditions.

By the first week in July of this year, three of the matings had each resulted in two broods and the hens had their nests ready for a third laying of eggs.

At this time, the Aviation department was recruiting here and one of their flyers made daily flights over the city. Whenever the great, hawk-like appearing machine could be seen by the birds, the males would whistle a terrifying cry of danger and, almost instantly, every bird in the room, old and young, would be huddled in some part of their cages, trying to hide, trembling with fear and fright.

At the end of the week, the three nests held twelve eggs, all laid during the time of the aviator's daily flights. Seven of the eggs hatched; the others had not been fertilized. *Every chick of the seven was deformed.* Three had no anal vents and died within a few days. Two had extra pairs of wings with immobile joints. These remained in expansion continuously and brought to mind at once the wings in the usual illustration of "Winged Mercury". These extra wings were attached at the very apex of the shoulders.

The legs of the other two were twisted and held at full length beneath the bodies, like legs of wading birds in flight.

The same three pairs of parent birds have raised two broods each, since, and there was not a crippled or deformed chick among them.

The fact related in the foregoing having occurred in the family of Ovipara, supplies the strongest possible evidence favoring the actual operation of maternal impressions that has come within my observation.

W. F. Schrader.

Fort Wayne, Ind.

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[This is a very interesting observation which possesses all the value of a definite experiment taken with all precautions against error. Above all is it to be recognized that the factor of "coincidence", that usually renders similar observations in humans so difficult of interpretation, is absent. During several successive breeding seasons, the parent birds had hatched only perfect chicks. It was only when they experienced the terrifying observation of unknown flying things that both the male and the female birds were subjected to a serious fright and that their progeny were deformed. Subsequent matings again resulted in perfectly formed chicks; nota bene: after the disturbing element of the flying airplanes no longer was active. With these data before us, can it be said offhand that this was just chance and that "there is nothing in it?" It seems to us that this observation recorded by Doctor Schrader is deserving of careful consideration.—Ed.]

NEEDLESS PRESCRIBING OF ANALGESICS AND NARCOTICS

I prize your journal highly. It comes to my office loaded with a lot of good meat for the average physician who can appreciate a good thing when he sees it.

As regards the physician doing a general practice, he will get hold now and then of a patient, respectable in every way, but, who, for one reason or another, has become addicted to the use of morphine or some other narcotic. Under the existing laws aiming to control the sale and prescribing of narcotics, the druggist may not

sell such drugs, except on a prescription written by a lawfully qualified practitioner, while, on the other hand, the physician is left to judge as to whether he is justified in writing such a prescription or not.

Take a typical case under my care just now, that of a young woman who acquired the morphine habit by reluctantly using an opiate, on account of painful menstruation caused by a pinhole os. The parents, at the time, were ignorant of the cause of the girl's severe suffering. The doctor that was consulted, without making a physical examination, prescribed aspirin—a remedy that cures nothing, while being a dangerous drug in the hands of the common people. Indeed, in my estimation, aspirin causes more deaths than does morphine; for, the latter stimulates the heart's action, while aspirin is a depressant and interferes with the heart's action; the lips and finger-nails become purple and there is difficult respiration after an overdose of aspirin. The longer one takes aspirin, the more the dosage must be increased. Then, why not stop the indiscriminate sale of aspirin, as it is more dangerous than morphine?

A majority of the druggists display on their showcases an attractive advertisement of certain now very popular headache-tablets. Any boy or girl, anybody, can buy this vaunted pain-reliever. That headache-remedy contains aspirin or acetanilid, the initial dose being named as 4 grains, and, thereafter, as 2 grains every hour until relieved. Many doctors prescribe or dispense this remedy for fever, ordering one of these tablets each hour until the fever subsides. Is that intelligent practice?

But, I digress from my typical case, above referred to. That young woman came to me accompanied by her mother. After eliciting a full history of her condition, I told the two that I could not arrive at a positive diagnosis, unless I made a physical examination.

I found a healthy condition of the reproductive organs, except that the os uteri was greatly contracted, not admitting the passage of the smallest probe. I made a tent of dried slippery-elm bark, made it very smooth, softened it in warm borated water, attached a small silk cord to its outer end, and then, by careful manipulation, managed to slip it to its full length of 3½ inches into the os. I then placed a tampon of cotton, moist with borated-lobelia-solution, against the os, in order to hold the tent in place. This was to be removed after about forty-eight hours. Thereafter, she was to take a hot-water douche of one-half gallon and containing 1 ounce of magnesium sulphate, repeating this every night and morning.

I continued this treatment for three months, gradually enlarging the elm tent until I was able to introduce a tent half an inch in diameter and 4 inches in length with an apex of ⅛ inch in diameter.

Before I saw this girl, her doctor had supplied her with a hypodermic syringe and morphine tablets of ¼ grain to be used to relieve the pain. She thus became a confirmed addict to morphine and was using ½ to 1 grain of it whenever she wanted to feel good—used it as a bracer. Thus I found her.

Before the first treatment, I injected 1 grain of morphine with 1/15 grain of strychnine nitrate, took her syringe and morphine away from her, and ordered her to come to my office every day for a similar hypodermic injection. I reduced dose gradually each day, until, at last I substituted a placebo. At the end of three months, I told her that she had not had any morphine for a month.

While weaning her from the morphine, I gave her, from start to finish, the following mixture, using Lloyd Brothers' preparations:

Specific medicine of pulsatilla	1 dram
Specific medicine of hyoscia-mus	20 drops
Specific medicine of cactus grandiflorus	2 drams
Specific medicine of gelsemium	2 drams
Specific medicine of macrotys..	4 drams
Specific medicine of caulophyl-lum	2 drams
Simple elixir, enough to make	8 ounces.

Dose: teaspoonful before meals and at bedtime—mixed in cold or hot water as desired.

This was intended also as a general tonic. In addition, I also gave an elixir of quinine, iron, and strychnine, a teaspoonful after meals, diluted with water. Besides, I prescribed the indicated remedy for the bowels and other conditions.

At the end of three months, I had this patient well in every respect, free from the morphine-habit, and with normal and painless menstruation.

Now, is not this method of treatment more rational than the all too common

practice by way of the morphine-aspirin-acetanilid route? Is not this better for the patient than the indiscriminate use of the knife, so often resorted to for the augmentation of the surgeon's bank account? Many practitioners get into a rut and stay there, never learn to think, letting some medical society dictate to them. There are no strings on your humble servant.

J. E. Callaway.

Chillicothe, Mo.

[It is cases like the one described by Doctor Callaway that the Harrison law is intended to prevent. Surely, nothing can be more reprehensible than the carelessness of the first physician that had supplied the young girl with a hypodermic syringe and with morphine tablets, leaving it to her discretion to use this potent and dangerous remedy for the suppression of her menstrual pain; while knowing fully well that, in all probability, the legitimate use would soon be superseded by an illegitimate employment. Dysmenorrhea never is treated properly by means of morphine injections and it might justly be expected that no physician would be guilty of such a foolish procedure as is outlined by our correspondent. Certainly, his own treatment was followed by good results and proved that the resort to morphine was entirely needless.

As for Doctor Callaway's strictures on aspirin and the coaltar products, we have repeatedly pointed out that their indiscriminate use is foolish and injurious. On the other hand, it can not be denied that these remedies possess great possibilities for good, and very often have been the means of relieving conditions that were distressing and might have developed into serious disease.—Ed.]

AN OLD PRACTITIONER'S PLAINT

In Clinical Medicine for October (page 728) there is an article by Dr. W. W. Lasley, of Lewisburg, Ky., that I fully endorse all the way through. To make myself understood, let me say that I am now treating a man, an addict to the use of morphine. I am almost afraid to buy just what narcotics I *must* have to cure a case of this kind, for fear some druggist might report my purchases to an Internal Revenue Inspector, who might come and investigate the case to find out whether I am using narcotics legitimately or not.

I am debarred from giving my patient a dose to take home with him for use at bed time. If he comes to my office for his required treatment, at stated hours, and if I am busy with other patients, he must wait, though he be a busy, hard-working man. He may perhaps lose an hour or two waiting for his doctor to administer the required dose. The Harrison law says that you must give the medicine personally. While I know that my patient is an honest man and very anxious to be cured, and that he would not abuse my confidence by using larger or more frequent doses than directed, still this law says: thus far and no farther shalt thou go.

Supposing I am treating a case of severe neuralgia, the patient coming to my office, suffering pain so harassingly intense that I deem it absolutely necessary to administer, say, ¼ grain of morphine sulphate with 1-150 grain of atropine sulphate; although this patient resides miles out in the country, I am absolutely prevented by law from giving him two or three doses to take home, to be used only in dire need. This law is against the best interests of both the doctor and the patient.

True, opiates do not cure, but, they do relieve pain, causing the patient to obtain much-needed sleep and rest. Treatment by narcotics is necessary in a great many cases, for a time, until you can give the remedies that cure. After that, the narcotics are not needed, not even wanted, by the patient.

Now, a little personal experience: I began the study of medicine in the spring of 1857, in my preceptors' office, where my duties were many; from keeping the office clean to making pills, tinctures, syrups, and studying Gray's Anatomy, one or two hours each forenoon, and theory and practice in the afternoons. The next day, I would stand quiz. Gradually, I learned to administer indicated remedies and, in course of time, my preceptors promised to take me into partnership. But, then, I had only a very common school education, though I had taught two terms of school of three months each. However, I practiced medicine until the autumn of 1860, when I entered a medical college, attending a six-months term, whereupon I

graduated. I have practiced medicine ever since and am now in my 84th year. I still am in the harness and do not lose to exceed 2 percent of all the cases of flu, pneumonia, typhoid, diphtheria, croup or any ailment I treat. Yet, my competitors who have spent thousands of dollars to learn how to use the knife but know mighty little of how to treat and cure diseases, lose 10 to 25 percent of all cases they treat. If a patient of theirs has a belly-ache they pronounce it appendicitis, and hurry him off to a hospital for operation. I could call attention to hundreds of cases where pseudodiagnosis has failed, the non-indicated remedy given, an acid prescribed when an alkali was the remedy. They say, let me see your tongue, and in two minutes they cannot tell what the tongue revealed. They do not know just how to read the tongue. If a patient has a little fever, slight abdominal tympany, they say typhoid fever, then to the hospital, ice packs, then the undertaker is called.

Chillicothe, Mo. J. E. Callaway.

[While, undoubtedly, the restrictive legislation concerning narcotic drugs works some hardships to physicians and patients, its effect, as a whole, is decidedly salutary. Certainly, we have found that we can do much, for relieving pain, without having recourse to morphine. We suggest that our correspondent, and others, read with care the discussion by Doctor Blair appearing among the leading articles in this issue. It throws an important light on the subject.—Ed.]

HEREDITARY SYPHILIS OR TOBACCO- AND ALCOHOL POISONING

While I was much interested in Doctor Hutinel's article on "Hereditary Syphilis," it seems to me that his paper is very obscure, and that many of the Doctor's conclusions are dictated wholly by his imagination.

In early childhood, hereditary syphilis is easily detected and, if it is not recognized and is not energetically treated, it becomes rapidly fatal; moreover, it is not as common as one would conclude from reading the Doctor's paper. On the other hand, the hereditary effects of alcoholism and nicotinism are universal and the neuropathic and sclerotic circulatory degenerations described by Doctor Hutinel are almost wholly due to the hereditary effects of those two drugs. For, it is well known that the hereditary influence of alcohol is expended almost entirely on the nervous system, while that of nicotine affects the circulation. The effects of these two drugs now are so well known that there is no need for any guesswork about it. Of the two, nicotine is decidedly the worse, it being the most destructive enemy of the human race.

For instance, if both parents are under the influence of alcohol when conception takes place, the offspring usually will be idiotic or epileptic. I have personal knowledge of four such cases in large families and in which an idiotic child appeared at a certain time, the rest of the children being very bright. As to the effects of nicotine addiction, I have recorded my observations in an article on that subject in the *Medical World* for last August (page 279).

No, Doctor Hutinel, hereditary syphilis begins to manifest itself later in life, at puberty and during the climacteric, when glandular troubles become numerous. Many years ago, Virchow expressed the opinion that goiter was caused by hereditary syphilis, and I began at once to work out a plan of treatment along the line of his suggestions, succeeding remarkably well so that, a few years ago, I could publish my findings in Clinical Medicine (April, 1917, p. 302) under the title of "The Antiluetic Treatment of Goiter".

I want to assure Doctor Hutinel, from the results of my own study of hereditary degeneracy of childhood, that for every case due to syphilis there are 100 due to alcoholism and 1000 due to nicotinism. A thorough study of the subject will astonish the good Doctor and will result in a world of good to the human race.

Miles, Iowa. W. A. Marner.

[We are unable to say whether the percentages for the hereditary effects of parental alcoholism and nicotinism as against those of parental syphilis, as claimed by Doctor Marner, are based upon actual figures or upon unrecorded clinical experiences. Those given by Professor Hutinel are determined by the data contained in exact hospital records supplemented by laboratory examinations of the blood and

spinal fluid of the children. Professor Hutinel is not the only syphilographer who attributes to lues venerea such terrifying consequences that are active even in the third or fourth generation.

In this connection, an editorial review, in *American Medicine* for October last, is of interest. While Blackfan, Nicholson and White reported on the examination of 101 infants in a foundling hospital, with only 2 positive reactions to the Wasserman test, Holt reports that, in 178 hospitalized children with no definite signs of syphilis, about 6.1 percent were adjudged to be syphilitic. However, DeBuys and Loeber determined the incidence of congenital syphilis, in 106 infants in a foundling institution, to have been 83.96 percent of which 74.53 percent were revealed by means of the luetin reaction, only 9.43 percent being diagnosticated on the basis of the clinical findings and syphilitic eruptions.

We believe that, just as in the case of tuberculosis in the parents, so parental syphilis produces in the offspring evidences of degeneration that may assume varying degrees of severity from rapidly fatal, acute disease to mere stigmas of degeneration. While formerly it was believed that both, hereditary syphilis and "hereditary" tuberculosis (which latter, though, is not transmitted by heredity as *disease*) manifested themselves especially at puberty, it has been proved by ample tests that these manifestations can and do declare themselves in infancy as well as in early and in later childhood.—Ed.]

IN MEMORY OF THE LATE DOCTOR TAYLOR

Well do I remember the introduction given that young prodigy, the little "Alkaloidal Clinic", by Dr. C. F. Taylor of the *Medical World* in, about, the year 1895. This rapidly developing "Clinic" finally became the present American Journal of Clinical Medicine.

At that time, Doctor Taylor was an advocate of the populist party's political measures since adopted by the democrats and progressive of all parties throughout the Union. He and I held much in common politically even to the day of his death.

The medical profession owes much to Doctor Taylor. He ever stood between them and exploiting financial sharks who looked upon the average doctor as easy prey. The true ethics of our profession he ever held up as his guiding star in his literary and business career. His heart always was tender and responsive to the wants and conditions of his brother physicians.

Doctor Taylor's love was not confined to his family and professional brethren, but embraced his native land, and, lastly, the whole world.

If I remember rightly, his plan of a *League of Nations* antedated that of President Wilson, and was much superior to it. The one now under consideration by the U. S. Senate is simply a "League of Governments", whereas that proposed by Doctor Taylor was a Congress of the Nations composed of delegates of, and from, the different peoples, that would see to it that peace was preserved in justice.

A. T. Cuzner.

Gilmore, Fla.

OPPOSED TO VIVISECTION AND SUCH

I believe in democracy, even in the medical profession. It is time that we had freedom of speech in our own medical ranks. The people have a right to know the truth.

I read with much interest the letter from Dr. F. H. Todd, of Cleveland, Ohio, against vivisection. There was a time when I was as orthodox a physician as any and believed in vivisection, vaccination, serum-therapy, and the like; but, I have experienced a rebirth. I believe now that vivisection and serum-therapy have done more harm to the human race than all wars since the dawn of history.

Vivisection is unscientific, unnatural, cruel, and abhorrent. Still, I "agree to disagree" and am willing to grant every honest man "a hearing," irrespective of his opinion. Clinical Medicine is to be congratulated in allowing discussion on such a subject as vivisection.

Simon Louis Katzoff.

Bridgeport, Conn.

Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

[*Continued from November issue, page 805.*]

The Actual and the Ideal

OF course, the efficacy of this knowledge lies, perforce, in its thoroughness; for, if it is not well understood, the letter deposes the spirit and chaos ensues. When a man says to me, "Join our crusade against vice" and I answer, "I believe in nonresistance," I am by that answer resisting him. None but the understanding soul can remain above such circumstances as these. The question everywhere is, "With what motive do I act?", and, it is not the least of human perplexities for us to be always, or even frequently, sure of our own singleness of motive. Moreover, we may be certain that the world will judge us by the worst that is known of us, rather than by the best, unless we win some great victory for it, and then it will not judge us at all: it will worship us.

Moreover, whatever we may attempt to say or to write, we can never put our whole meaning in words; for, language is not commensurate with thought, and the higher the thought, the more will our attempted expression of it in words be misinterpreted and obscured. Antisthenes could get nothing better from Socrates than cynicism. It is true that from the same teaching Euclid got something else, Aristippus something still different, while Plato received something quite different from them all. This, however, is proof that ears to hear are as necessary as voices to speak, that words may have little effect—that it is spirit to spirit that talks the intelligible language. Even men's acts are, by no means, conclusive proofs as to their convictions, and it is said that more men have made themselves martyrs to obstinacy and pride and anger than have suffered, at the stake or otherwise, from adherence to principle. These anomalies are commonly seen in disputants who, though they may have begun the argument primarily to learn or teach the truths of some matter or other, having committed themselves to an opinion, forget their original object and argue each for victory, truth or no truth. This was the sin of Ananias, something different from a spoken falsehood, for, his error consisted in attempting to deceive the law as he deceived the law's officers. In his story, as applied to arguers, we see that happiness and the real victory lie in our adherence to truth rather than in the humiliation of our opponent and whether we win the argument or lose it. Indeed, there would be something sweet and satisfying and virile, something strangely like victory glowing from the very ruins of the overthrow that had been suffered for love of truth and lack of subtlety, were such an overthrow possible; "as to be naked is to be so much nearer the being a man, than to go in livery," to quote Charles Lamb's rather involved phrase.

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The cure for these diseases is in nobility of soul—not somebody else's soul, but, mine, and yours—my cure in my soul, your cure in your soul. If any difficulty lies in apprehending how this may be, how one man's wisdom and purity can protect him from another man's ignorance and vice, it is because there is an edict of nature, to the effect that none of her children shall usurp another's prerogative. Therefore, the only way in which a person can estimate properly the resources of a wise and good man is, to be a wise and good man himself.

Neither is this condition difficult of attainment. "We can do our best easiest." We need only to have the real desire, and immediately all the powers of heaven and earth set themselves at work in our behalf. Every object of nature, every tree, every flower, every stream, lake, hill, and valley, every beast of the wilderness stands mutely or musically showing the way. Each

lives its own life, with no pretensions, no concealments, its sole object, to fill its proper sphere, doing its best to become a good lily, a good oak, good corn, yes, a good weed or a good snake, if that be its station in the cosmos—and who shall say which among them stands best beloved of the great Mother Nature!

This is the secret that Nature whispers to her lovers: "Do thy best as it is given to thee to do it; for, though that best should be only third rate, or tenth rate, or millionth rate, if it is, indeed, thy best, the rest is already looked out for." This it is that constitutes a wise and good man, this is nobility of soul, and it is all we know of happiness. For, then, though

Foolish hands may mix and mar,
Wise and sure the issues are.
* * * * * * * * *
For, there's no sequestered grot,
Lone mountain tarn or isle forgot
But Justice journeying in the sphere
Daily stoops to harbor there.

This sentiment, I am well aware, will be regarded in many quarters as a relic of the golden age of man, not applicable now, in the midst of the turmoil and confusion and rapacity of the twentieth century, when each man is supposed to be for himself and the devil owns the vast majority of us body and soul. In the good old times, it may have been so, but, now—

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It seems pertinent at this point to consider what was the "Golden Age"—what is meant by "the good old times".

From time to time, there appears in print or on the street reference to "the good old times", but, a careful search of annals fails to locate those times. Regarded on the mere plane of physical comfort and freedom of life, one says, the good old times were in the days of stages, before the advent of locomotive engines, with their noise, dirt, vulgarity, broken limbs, and loss of life. Then, in those days, says he, how delightful it must have been to roll on smooth wheels behind a spanking team through a beautiful country, to the accompaniment of bugle and merry laughter, with rich conversation and a carefree soul. A pleasant picture, truly, and we, too, begin to regret those good old times, until we find, through certain histories, that the coach of those days stood the material essence of discomfort, tardiness, dirt, vulgarity, and profanity. Another maintains that the good old times were when state officials were honest men, who took office from motives of pure patriotism, and not, as now, for the spoils. If then we look, in back-number newspapers, diaries, and memoirs, for the annals of those times, we find the "good old times" always a little further back. And, if we keep up the pursuit away back to the beginning, in our own country—to say nothing of other nations—we find the contemporaries of Washington and Jefferson themselves lamenting those good old times, stigmatizing him whom we now call "the father of his country" as "the source of all the misfortunes of our country" and attributing to Jefferson war, vice, infringement of the constitution, and the destruction of liberty!

This looking backward for all that is great and good is the disease of broad humanity. It was the same in Europe, in Rome, in Greece, in Asia itself, the very cradle of our infancy. All nations speak regretfully of the golden age. The one fatal fact loading down every page of history is, that this pure and delectable age always was before the present one. So, men say their childhood days were their happiest. They forget the long rainy days, the mortal terror of the dark, the deathly fear of surely coming punishment for some offense committed, the hatred of school, the loathsome illnesses, the rebellion against rules, the long, long drudgery of the chores while the other boys were playing on the green, the wild longing to become free and independent like men, the sickening, longdrawn, interminable deferment of that hope and promise. God is good. He has so constituted us that we forget the bitter, while remembering principally the sweet, which, in our minds, grows sweeter with the years.

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This teaches us nothing if not that the good old times are now—or never. "Wisdom is more from the heart than from the head. Feel goodness, and you will see all things fair and good", says Shaftesbury. The times as they appear to each observer are, at bottom, his own spirit as he sees it reflected in others and in events. If today something comes that looks to me like sad misfortune, I may be certain that tomorrow, or next year, when I have more wisdom, I shall see that something

in a new light—may, perhaps, realize that it was, indeed, the only thing that could save me from ruin at just that time. For, what to the superficial eye is chance or is evil is to the seer a manifestation of law, law immutable, with which he must comply if he would be served by it, as he bends the sun and moon and stars and the principle of gravitation to his will by learning and obeying their laws.

If a man goes out to make hay in the rain, that is his fault, not the fault of the rain; and, if he sets his hour for sailing without consulting the tides, it is he, not the tides, that is to be blamed for naked flats and a motionless boat. So, in trade in art, in politics, in religion, in society, we see our intelligence continually opening the way or our ignorance blocking it. If tradesmen are dishonest, that hurts them, not you. They may steal your money, but, they can not touch your character, which, if it is properly balanced, will bring you money enough, no matter how much may be stolen from you. In case of any failure, there will always be found one of two things: either insincerity, the lack of character, is at the bottom of it, or else there is no failure. The apparent failure is a real success, needing only the stout heart and the virtuous mind to be recognized as such; for, the inexorable law that rules us in our manhood as a wise parent rules his child is that of sincerity, character. It has other names, also, such as love, truth, faith. We show our innate, involuntary belief in this fact by our attempts to imitate the quality when we feel ourselves to be lacking in it. But, that is a misshapen semblance of it which apes love or truth or sincerity, for, hope of material reward or fear of punishment, and the reward will be commensurate.

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The true man, like the true soldier, fights for principle, not for the bounty or the pay. His life is his immortal work, his *magnum opus*, written in flowing characters in the streets of his city and the hearts of his friends. For, he is *real*, seeing the strength and beauty of truth and not its policy, living as the trees live and the flowers, because it is joy to do so, and dispensing abundantly his fragrance of soul with never a thought or wish for material return, but, solely for the loveliness and delight of it. If such men are thought to be few, we know, nevertheless, that no age has been without them and that in the very nature of things more of them have lived and died unknown to fame than have been enrolled upon its scroll. Such men revere themselves and their contemporaries as other men revere their ancestors; for, theirs is the gentle, seeing eye, which recognizes in their poor plodding brother the same spark of celestial fire that burst so frequently into flames in the hearts of old and which will here again prove its divine origin, yes, in bootblacks and thieves, when the time comes.

The lesson is, that, while our ancestors and the gods of Greece were brave and mighty, we are brave and mighty, too; and, if we may step a little further, we should say, as our forefathers were found by their contemporaries to be commonplace, unknown as gods and heroes until they were dead, it were wise for us to profit by this example and look upon our own friends as heroic geniuses, even though they may be disguised, like Apollo, in a shepherd's rags.

In this way, we ourselves, may grasp the good that is in them, instead of leaving it all for posterity, the while we flounder around in the superstition and barbarism of a self-imposed stone-age, mistaking gentleness and purity for cowardice and weakness, as the blind fish of the Mammoth Cave mistake God's golden sunlight for evil and drop back woodenly into their habitual darkness at the approach of the merest ray of light.

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And this brings us at once to a consideration of that anomaly without reference to which no word of the ideal and practical can be sanely spoken, yet, which too often is entirely ignored in such dissertations, namely, people.

[*To be continued*]

Among the Books

PUSEY: "DERMATOLOGY"

The Principles and Practice of Dermatology. Designed for Students and Practitioners. By William Allen Pusey, A. M., M. D. With 54 plates and 466 text-illustrations. Third edition. New York: D. Appleton & Co. 1917. Price $7.00.

The author informs us that, in this edition, which is a complete revision, the chapters on pellagra and syphilis, have been almost completely rewritten; that on pellagra, because of the importance that it has assumed for us in America, and that on syphilis, because of the epoch in the knowledge of that disease that is constituted by the last few years. In addition, many subjects have assumed new importance and are discussed in this volume. Among them, are, the changes of the blood in skin diseases, autoserum-therapy, fulguration, infantile erythema of Jacquet, dermatitis from hair-dyes, dermatitis from formaldehyde, gonorrheal eruptions, balanitis gangrenosa, acute ulcer of the vulva, espundia, acauliosis, the skin lesions produced by bees, ants, flies, and gnats, blue atrophy of the skin, nodulary, necrotic dermatitis, dermatothalasia, nævus anæmicus, zoniform ectasis, purpura annularis telangiectodes, leukæmia cutis, sarcoid trichotillomania, Moeller's glossitis, periadenitis, mucosa necrotica.

Doctor Pusey is one of the leading practitioners and teachers of dermatology, and his treatise is generally accepted as an authoritative one.

SOUTHARD AND SOLOMON: "NEUROSYPHILIS"

Neurosyphilis: Modern Systematic Diagnosis and Treatment. Presented in 137 Case-histories. By E. E. Southard, M. D., and H. C. Solomon, M. D. With an introduction by James Jackson Putnam, M. D. Boston: W. M. Leonard, publisher. 1917. Price $5.00.

The nervous manifestations of syphilis have been an object of intensive study and investigation for a number of years and have received additional importance through the influence of the war. To present these problems, as they confront the general practitioner and the syphilographer, in the form of case-histories, is an undertaking greatly to be commended.

The study of the various case-histories is made exceedingly useful by the summaries and also by the questions added to many of the discussions. Altogether, this is a splendid work for the general practitioner who needs to inform himself concerning the mental problems of general practice. It is the general practitioner who first sees the patients that ultimately are referred to psychopathic hospitals and asylums. If he keeps an open mind and if he is sufficiently well informed, he may be able to arrest the progress and improve the prognosis of many cases that are amenable to appropriate treatment.

LANE: "CHRONIC INTESTINAL STASIS"

The Operative Treatment of Chronic Intestinal Stasis. By Sir W. Arbuthnot Lane, M. D. Fourth edition, revised and enlarged. London: Oxford University Press. 1918. Price $4.00.

Arbuthnot Lane's views concerning chronic intestinal stasis are, by now, well known to physicians the world over, as is also his method of dealing with this trouble, namely, by short-circuiting the colon. However, it would be a mistake to assume from the title that the book deals only with the Lane operation. On the contrary; it contains in its 15 chapters a discussion of a number of topics, all leading to intestinal stasis, which decidedly repay close study. We are sufficiently convinced of this to enumerate here the chapter-headings which are as follows: "The Investigation of Chronic Intestinal Stasis by the X-Rays"; "The Bacterio-Chemistry of the Small Intestine"; "X-Disease"; "A Remarkable Example of the Manner in Which Pressure-Changes in the Skeleton

may reveal the Labor-History of the Individual"; "The Anatomy and Physiology of the Shoemaker"; "The Great Bowel; from an Anatomist's Point of View"; "On Intestinal Stasis, Intoxication, and Subinfection"; "The Blood-Picture in Intestinal Stasis"; "Intestinal Toxemia and Loss of Accommodative Power"; "The Medical Aspect of Intestinal Stasis"; "Chronic Streptococcal Infection of the Alimentary Tract"; "The Investigation of Chronic Intestinal Stasis by the X-Rays"; "The Gynecological Aspect of Chronic Intestinal Stasis"; "Pyorrhea and Its Relation to Chronic Intestinal Stasis".

Most of the chapters have been contributed by authors other than the editor of the book. Among the contributors, we find the names of Sir James MacKenzie, Professor Adami, and Major A. White Robertson. One chapter that appeals to us as of especial importance is the last one on pyorrhea and its relation to chronic intestinal stasis.

HIRST: "GYNECOLOGY"

A Manual of Gynecology. By John Cooke Hirst, M. D. 175 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Price $2.50.

This little manual ought to prove very helpful to the beginner in gynecology, and also to the doctor in general practice who has so many demands upon his time that extensive reading is out of the question. We all know the author who compels his readers to wade through a bushel of chaff to find a grain of wheat. By contrast, this volume is concise, complete, and systematic; while an excellent index renders its information promptly available. Doctor Hirst possesses the happy faculty of setting forth minute and practical details in comparatively few words, yet, without omitting anything important. Many of the textbooks on gynecology in the past were disappointing because of the omissions in regard to the minor ailments of women which form no small part of the material presenting itself to the family doctor. In the matter of illustrations, this volume has struck the happy medium. Many recent textbooks have been made very costly by extravagance in the use of expensive illustration. That may be good advertising but it does not help the reader. This error has been avoided here without omitting anything really helpful.

HIRST: "OPERATIVE GYNÆCOLOGY"

Atlas of Operative Gynæcology. By Barton Cooke Hirst, M. D. 164 Plates; 46 Figures. Philadelphia: J. B. Lippincott Company. 1919. Price $7.00.

This book is remarkable for various causes, one being that it is beautifully printed and profusely illustrated. Indeed, the author considers the illustrations to be an integral part of his work, since together with the text they enable even the student without previous operative experience to comprehend modern operative technic. It may be added that the illustrations are colored and show the separate steps of each operative procedure to perfection. They are splendidly executed and very clear.

The text has been subordinated to the illustrations, saving the reader's time and lightening the burden of obtaining a grasp of the subject. However, it must be said that the text is amply detailed for practical purposes.

The whole work is characterized by its practical value, the author, going at once to the business on hand, dealing with it decisively and lucidly. We rarely have enjoyed any work on operative technic so much.

Among the various points that the author makes, we may take out at random his insistence upon ample and horizontal light in addition to the illumination provided by a skylight. While approving of the tendency to have the operating room finished in a different color from the customary glaring white, Professor Hirst himself never has experienced any decided disadvantage from operating in the white operating room. However, a new operating room being constructed, he believes that a greenish-blue tint would be superior to the dark-slate or brown color seen in some modern operating rooms.

In the preparation of the patient, Doctor Hirst ridicules the common practice of smearing tincture of iodine on the skin of the abdomen, and then immediately incising it, with the confident assumption that it is sufficiently sterilized to prevent infection. An expert bacteriologist, he thinks, would

be amused at this assumption. Indeed, in a series of cases that he had tested, pathogenic bacteria were found in every one. Doctor Hirst's own method of disinfecting the skin preparatory to laparotomy, while cumbersome, seems to us exceedingly efficient. He also mentions the simpler plan carried out by Professor Edward Martin, in the University Hospital of Philadelphia, which is, to wash the abdomen with soap solution, wipe the skin with ether or benzine, and then rub it with five-percent solution of dichloramine-T.

Doctor Hirst's book must be seen and examined to be appreciated. We should call it distinctly a good "buy" and recommend it cordially to all physicians doing surgery.

"ANNALS OF MEDICAL HISTORY"

Number 1 of the second volume of the *Annals of Medical History* recently made its welcome appearance on our desk. A publisher's note informs us that, owing to the exigencies of the war, Volume 1 of the *Annals*, while bearing the date of 1917, was not completed until early in 1919. For this reason, the second volume will bear the date of 1919, and there are no issues for 1918.

The number before us fully bears out the promise of the first volume. There are some singularly interesting original articles, among them, a contribution by Dr. George W. Corner, of the University of California, entitled "Anatomists in Search of the Soul". Dr. Walter A. Jayne, of Denver, Colorado, writes about the medical goods of ancient Iran. Dr. John Collins Warren, of Boston, gives an account of the "pulmotor" of the eighteenth century, while Dr. James J. Walsh, of New York City, presents two chapters in the history of laryngology and rhinology. These are only a few of the many interesting articles, and it must not be forgotten that there are included in this number several poems by Dr. Charleton B. McCulloch. In one of these, he likens the (female) ambulance driver to the Valkyries of old.

The *Annals of Medical History* is published quarterly by Paul B. Hoeber, 67-69 E. 59th St., New York City, at a subscription price of $6.00 per annum. It is edited by Dr. Francis R. Packard, of Philadelphia, and counts among the associated editors some of the most noted medical littérateurs of the day. While we are happy to receive evidences of the continued publication of this journal, the Reviewer finds it difficult to understand how it is possible to produce such a beautiful publication at the low subscription price asked. Since its purpose is devotion to a legitimate line of medical research, it seems to us that an endowment should be established for the continued publication of the *Annals of Medical History* and for the purpose of assuring it freedom from financial embarrassment. We ventue to suggest that the Rockefeller Foundation might well and properly set aside a fund for the support of this truly meritorious undertaking, feeling certain that such an endowment would be money well spent.

DYKE: "AUTOMOBILE AND GASOLINE ENGINE ENCYCLOPEDIA"

Automobile and Gasoline Engine Encyclopedia. Tenth edition. Containing 532 charts, inserts, dictionary, index, and supplements on the Ford, Packard, Airplanes, and Liberty "12" engine. By A. L. Dyke, E. E., St. Louis: A. L. Dyke. Price $5.00.

The editor looks upon this book as a sort of automobile bible. It contains everything that anybody can possibly want to know about the structure and maintenance of a car. Never yet has he failed to find the thing he has been looking for. It contains some 532 charts, and illustrations too numerous to mention. There are descriptions of all kinds of cars and all kinds of parts of said cars. We predict that in many a home "Dyke's Automobile and Gasoline Engine Encyclopedia" will, hereafter, divide honors with the Sears-Roebuck catalog and the family Bible—and that it will be read more earnestly and frequently than the Bible.

Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

Queries

QUERY 6463.—"Myiasis Narium, or Worms in the Nose." E. W. S., Oklahoma, recently was called to see an old man that had been bleeding from a nostril for thirty-six hours. The man had practiced medicine, year ago, and had diagnosed the epistaxis as due to a ruptured vessels, caused by an old chronic catarrh. He tried emetine, adrenalin, alum, cold cloths, and other measures, but, the blood continued to ooze steadily. He did not experience any pain and was not alarmed, as the Doctor, himself, was. The latter writes:

"I remained with him most of the day. Several hours after I had left, the son called me, saying, 'Father still is bleeding and wants you to come again. I could not go then, so I telephoned another doctor and requested him to see the old man, do what he considered indicated, and let me know what he thought might be the trouble and that I should make a call next morning. The Doctor went, failed to check the bleeding, gave him a hypodermic injection of morphine and left.

"Next morning, I found the patient very nervous and growing a little uneasy. I injected 1-4 grain of morphine in his arm, which had no effect; later, I gave him ¼ grain more, also without effect; so, I gave a further ½ grain—a total of 1 grain morphine in about one hour. Still I could not discern any effect. I noticed, at times, that a pale-looking fluid would drop from his nostril, then pure fresh blood, then dark clots.

"I now made a solution of chlorazene (one 2-grain tablet to an ounce of warm water), saturated a pledget of absorbent cotton with it, and pushed high up into the bleeding nostril. Within a few minutes the patient complained of blood getting into his throat. So, I withdrew the cotton and told him to blow the nose as hard as he could, whereupon the largest 'screw-worm' that I ever have seen became dislodged.

"Being sure now of the diagnosis, I telephoned to another doctor, who is a very fair surgeon, and explained the case, so that he would come prepared to do what he thought best. Upon his prompt arrival and learning the situation, he decided to spray out the nostrils every hour and suggested giving as much liquid nourishment as could be taken. I remained several hours after the Doctor had gone, carrying out his instructions, and left along toward night, giving instructions to continue the treatment and to call me if the patient were alive next morning; however, just before daybreak he died.

"It was reported that, after the man died, 96 screwworms came from his nostril. I doubt that there were that many; I do know, though, that there were very many—I am sure, more than 50. It is strange to me there was neither any odor, enlargement or pain, nor any indication of foreign bodies being present.

"Please tell me whether you ever saw or heard of a similar case? Of course, there are many to censure me. Some blame me for not having located the trouble and cured it; others say that "if I had been thar, I'd a found them 'er worms and got every one of 'em.' But, I did my very best, and when I do this, I have a clear conscience."

If you have access to a file of CLINICAL MEDICINE, you will find this subject covered in Query 5629, October, 1910; also, in the December, 1910, issue, about an interesting case of myiasis intestinalis due to infection with three species of dipterous larvæ, reported by Doctors E. F. McCampbell and H. J. Corper. The original paper appeared

in *The Journal of the American Medical Association* for October 9, 1909.

As a matter of fact, myiasis narium (larvæ, or screw-worms, in the nose) is an infection not uncommonly observed in South America and other tropical countries, where it is likely to be associated with extensive ulceration of the tissues, destruction of the bones of the face, production of pain, epistaxis, septicemia, sometimes convulsions, coma, and death.

One case of "maggots in the nose" was reported, some time ago, by an Oklahoma physician, also several such cases, by practicians in Texas. Both in the Oklahoma and the Texas cases, the larvæ found were those of the Texas screw-worm-fly. As many as 200 or 300 screw-worms have been ejected from a single individual.

Thomson, in "Diseases of the Nose and Throat," states that this distressing affection is most commonly met with in persons already victims of ozena, syphilitic disease of the nose, or other purulent nasal affections, the flies being attracted by the fetid odor, depositing their eggs in or near the nasal cavities. Rarely does this occur when the mucous membrane is healthy, since such a nose is so well provided with defensive arrangements that there will be little chance for any eggs being hatched.

The incubation-period of the eggs is very short and frequently already within a day or two symptoms of irritation are set up. There is a sensation of tickling and of "something moving about," soon followed by sneezing and bloody discharge. The irritation may amount to a distressing degree of formication and there may be extreme pain over the base of the nose, at the vertex and the occiput. The discharge may become thicker, more purulent and very offensive; maggots may be discovered in it and the epistaxis become severe. Edema of the eyelids and face ensues, abscesses form and, when these burst, the enclosed larvæ escape.

Inspection, in a marked case, discloses that the interior of the nasal chambers has been more or less completely destroyed. Not only is the mucous membrane involved, but, the cartilages and bones undergo necrosis and the accessory sinuses are opened or filled with larvæ and putrescent material. This state of things gives rise to septicemia and all its train of symptoms.

In some cases occurring in the southern states, although there was considerable general reaction, with acute inflammation of the nasal mucous membrane, prompt resort to medical aid averted local ulceration.

It can be readily understood, of course, that, when the accessory cavities have been invaded by the worms, involvement of the meninges is liable to occur. It is generally considered that those cases that are seen early are easily and satisfactorily dealt with; but, the outlook is grave when the patient does not come under observation until extensive destruction of tissue has taken place or the deeper sinuses have become occupied by the larvæ.

Once the condition is recognized, screw-worms can, as a rule, be dislodged by applying chloroform, either on cotton-wool pledgets or mixed with an equal volume of water and syringed down the nostrils, or the vapor inhaled in the usual manner. In this way, the larvæ are easily brought away. Of course, where destructive processes have taken place, appropriate treatment must be instituted.

One or two competent observers recommend the use of olive-oil or liquid petroleum, the nasal chambers to be completely filled with it after the patient has been placed in the horizontal dorsal position, with the head hanging over the edge of the couch.

It is remarkable that, in your case, the patient did not complain of pain or formication; however, the age of the man and the fact that he had suffered for some years from "catarrh" (probably atrophic rhinitis) may account for the local anesthesia.

Unfortunately, you do not supply sufficient data to enable us to decide whether death was the result of sepsis or of loss of blood; we do feel, though, that it is unfortunate that, after the single screw-worm was expelled, more active measures were not taken to remove the host of larvæ that evidently were present. The heavy doses of morphine were, in this writer's opinion, most undesirable. It is just possible that the use of chloroform at this time might have saved the man's life. On the other hand, the destruction of tissue and consequent systemic toxemia may have been so profound that the old man would have succumbed despite everything that could have been done for him.

In all these cases of obstinate epistaxis thorough exploration of the nasal cavities

should be done with a head-mirror and reflected light.

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Query 6464.—"The Internal Use of Chlorazene." H. W. K., Virginia, asks: (1) "Is the internal use of chlorazene tablets ever indicated? (2) What harm might result from their internal use? (3) Could they, in any way, be habit-forming, that is, could a patient form the habit of taking them, and what would be likely to cause it?"

Recently, the internal use of chlorazene has been recommended by several physicians, but we should not advise the administration of chlorazene tablets, as such, a solution being much preferable for obvious reasons. However, it is on record that patients have taken several chlorazene tablets without experiencing any untoward effects whatever.

We cannot, at this time, express a definite opinion as to the possibility of an individual forming a "chlorazene-habit," though such a probability is extremely remote. It is likely that any prolonged use of chlorazene would, to a greater or less degree, derange the gastric secretions and might cause some irritation of the gastric mucosa. Given for short periods, in reasonable doses, however, no such undesirable effects should be observed.

Should you have any experience in this direction, we sincerely hope that you will favor us with a detailed report, as we have yet much to learn regarding the internal use of chlorazene.

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Query 6465.—"Obscure Case of Pain in Spine." W. A. L., Kentucky, has a patient "whose pathology is a hidden mystery" to him and to all others whose skill has been tested, including several Louisville specialists. Blood tests and other tests, have failed to show anything abnormal. Three joints of the lower spinal column seem to be affected, so that a slight strain at that point induces an unbearable pain. This condition has persisted for months. "What I want is, something not forbidden by the Harrison law that will relieve or prevent those awful pains. The patient is very bright."

As you can readily understand, it is practically impossible to advise any therapeutic procedure for an unknown pathological condition or, for that matter, even to make intelligent comment. We do not even know whether this patient is a man or a woman, or whether the "pain in the three lower segments of the spinal column" (even this is rather vague) appears *only* upon stress or pressure over the area or whether it is constant, only becoming more marked upon strain.

We take for granted that syphilis, tuberculosis, caries and, even, a possible subluxation can be excluded?

In some such cases, the application of "flying-blisters" proves most beneficial. A piece of cantharidal plaster the size of a 50-cent coin is applied on one side of the spinal column, the resultant bleb is drained, then another plaster applied slightly higher and upon the other side, and the process repeated every few days.

At the same time, thorough elimination must be secured, while, also, the patient may be given reasonably full doses of sodium salicylate, acetylsalicylic acid or, even gelsemium. Occasionally, opiates are demanded; however, in practically every instance a thorough examination will enable us to locate the underlying cause, and, so, to institute rational treatment.

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Query 6466.—"Radio- and Thermo-Therapy." R. P. C., Canada, desires to use the violet rays in a case of chronic neuritis and, at the same time, apply a preparation of iodine with methyl salicylate and drive it in and quicken absorption by means of light. He writes: "I see advertised several appliances recommended for such a purpose, namely:

"(1) A thermolite lamp; (2) a violet-ray generator; and (3) the Roger's high-frequency generator, type H, mentioned in your Journal for December last.

"These all are operated from an ordinary lamp-socket and, in this respect, would suit me. I am not familiar with electrotherapeutics, as we have not had a lighting-plant until within about two years, and there was not enough work to be done in this field to warrant the expense of putting in the necessary apparatus—except as a hobby.

"I chiefly desire your opinion as to which would be the most advantageous and useful apparatus for my purpose, because every manufacturer, like the fond mother, considers his own goose a swan. Is there a distinctive difference between the violet ray or the high-frequency current

and that produced by the single or triplex thermolite lamp?"

We believe that you will obtain just the information wanted from the literature supplied by the makers of the various lamps and generators mentioned, but, venture to call your attention to the fact that there is a vast difference between the action of light-rays and high-frequency currents.

Unfortunately, it is impossible for us, in the scope of an ordinary communication, to discuss intelligently the principles of phototherapy and medical electricity, with especial reference to diathermy or thermo-penetration.

As you are aware, a vacuum-tube exhausted to the Geissler degree of 1-1000th atmosphere does not become luminous on the passage of a continuous current, no matter what the tension, but, as soon as the current intermits or alternates, the tube lights up and becomes filled with a reddish, bluish or violet light, no visible or audible spark passing through it.

Many different effects can be obtained by application of the high-frequency current and there are various forms of glass vacuum-electrodes, some with insulated handles, with or without interior metal conductors, and others insulated throughout their extent, except the discharging portions of the respective terminals.

Certain effects of high-frequency currents are common to all the different methods of application, namely, those of increased metabolism. Other effects depend upon the mode of application, and are chiefly vasomotoric.

This subject is very thoroughly covered in all modern works on medical electricity. We should especially recommend Tousey's "Medical Electricity and Roentgen Rays," and Jacoby's "Electricity in Medicine."

With *light* as a therapeutic agent, we have to consider the luminous, chemical, and heat-rays. As you are aware, in addition to the ordinary chemical rays that accompany the visible rays of light, there are what are known as the ultraviolet rays; those that are beyond the violet and are invisible.

It has been shown by Finsen that our sunlight is poor in ultra-violet rays, owing to absorption by the atmosphere; while the arc-light is extremely rich in the rays and, by a properly constructed apparatus, produces a light that, when filtered out by a layer of water contained in a quartz vessel, kills the bacillus prodigiosus in two or three seconds.

Various germs show different degrees of susceptibility, but, cultures of any of them may be sterilized by exposure to the ultra-violet ray, in from a few seconds to a few minutes.

It is quite evident that an apparatus that would prove effective under certain conditions would fail entirely in others.

Treatment with incandescent electric light can readily be carried out and will prove effective in sciatica, lumbago, dyspepsia, colitis, pruritus vulvæ, rheumatoid arthritis, and cases on the border-line between gout and neuritis.

Red and blue screens can be interposed. As you are aware, it is said that blue light exerts a calming and sedative influence, and that red light is effective in preventing the pitting of smallpox, scarlet-fever, measles, erysipelas, and noma. However, there is little reason to believe that the same results would not follow by keeping the patient in darkness.

In the Minin lamp, we have a blue glass bulb and a reflector, the effects of which are almost exclusively due to heat. It may be employed, with advantage, in joint injuries and inflammations, in eczema, superficial dermatoses, neuralgia, and rheumatism.

Briefly, anyone of the appliances mentioned by you may be used in a limited field, but, no one of them can, possibly, meet all the requirements.

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